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NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 NOV 21 CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present
NEWS 3 NOV 26 MARPAT enhanced with FSORT command
NEWS 4 NOV 26 CHEMSAFE now available on STN Easy
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NEWS 6 DEC 01 ChemPort single article sales feature unavailable
NEWS 7 DEC 12 GBFULL now offers single source for full-text coverage of complete UK patent families
NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS
NEWS 9 JAN 06 The retention policy for unread STNmail messages will change in 2009 for STN-Columbus and STN-Tokyo
NEWS 10 JAN 07 WPIDS, WINDEX, and WPIX enhanced Japanese Patent Classification Data

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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SESSION
FULL ESTIMATED COST 0.22 0.22

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STRUCTURE FILE UPDATES: 20 JAN 2009 HIGHEST RN 1094597-78-0
DICTIONARY FILE UPDATES: 20 JAN 2009 HIGHEST RN 1094597-78-0

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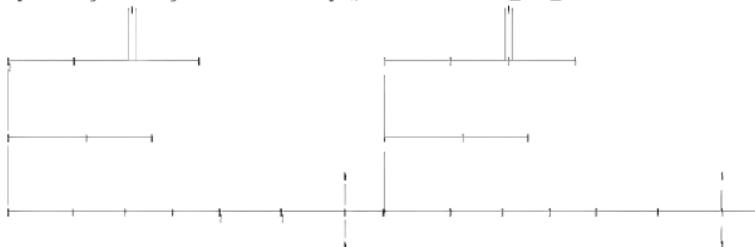
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<http://www.cas.org/support/stngen/stndoc/properties.html>

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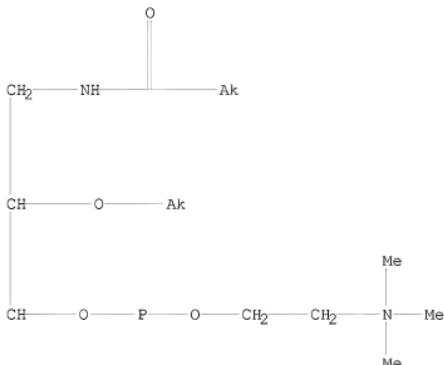


chain nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds :
1-2 1-6 2-3 3-4 3-5 6-7 6-9 7-8 9-10 10-11 11-12 12-13 13-14 14-15
15-16 15-17 15-18
exact/norm bonds :
2-3 3-4 3-5 6-7 7-8 9-10 10-11 11-12
exact bonds :
1-2 1-6 6-9 12-13 13-14 14-15 15-16 15-17 15-18

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS

L1 STRUCTURE uploaded

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L1 HAS NO ANSWERS  
L1 STR
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Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 11:39:24 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 166 TO ITERATE
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100.0% PROCESSED 166 ITERATIONS 68 ANSWERS  
SEARCH TIME: 00.00.01
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L2 68 SEA SSS FUL L1
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FILE 'WPIDS' ENTERED AT 11:39:33 ON 21 JAN 2009  
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FILE 'USPATFULL' ENTERED AT 11:39:33 ON 21 JAN 2009  
CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)
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SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE
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100.0% PROCESSED
SEARCH TIME: 00.00.01

1 ITERATIONS

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1 TO 40
PROJECTED ANSWERS: 1 TO 40

L3 50 L2

=> d 13 1-50 ibib, abs, hitstr

L3 ANSWER 1 OF 50 MEDLINE on STN
ACCESSION NUMBER: 1991202492 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2016713
TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.
AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C
CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.
CONTRACT NUMBER: CA 12197 (United States NCI)
CA 42216 (United States NCI)
RR 05404 (United States NCRR)
SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.
Journal code: 9716531. ISSN: 0022-2623.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 7 Jun 1991
Last Updated on STN: 3 Feb 1997
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L3 ANSWER 2 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:493012 CAPLUS
DOCUMENT NUMBER: 148:509885
TITLE: Compositions and methods for treating neurological disorders or damage
INVENTOR(S): Diamandis, Phedias; Tyers, Mike; Dirks, Peter B.
PATENT ASSIGNEE(S): Can.

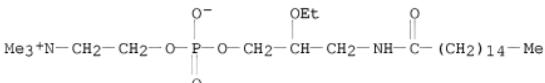
SOURCE: Can. Pat. Appl., 3pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|------------------------------------|------------------------|
| CA 2606658 | A1 | 20080413 | CA 2007-2606658
US 2006-851615P | 20071012
P 20061013 |

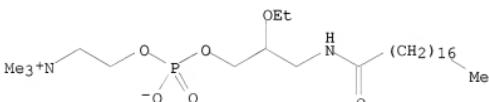
PRIORITY APPLN. INFO.: AB The invention relates to a clonogenic neurosphere assay to carry out high throughput screens (HTS) to identify potent and/or selective modulators of proliferation, differentiation and/or renewal of neural precursor cells, neural progenitor cells and/or self-renewing and multipotent neural stem cells (NSCs). The invention also relates to compns. comprising the identified modulators and methods of using the modulators and compns., in particular to treat neurol. disorders (e.g. brain or CNS cancer) or damage.

IT 112989-01-2 112989-02-3
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (screening for compns. and methods for treating neurol. disorders or damage with modulators of neural stem cells)

RN 112989-01-2 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 3 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:632247 CAPLUS
 DOCUMENT NUMBER: 147:109095
 TITLE: Synthesis, antifungal and antimicrobial activity of alkylphospholipids
 AUTHOR(S): Obando, Daniel; Widmer, Fred; Wright, Lesley C.; Sorrell, Tania C.; Jolliffe, Katrina A.
 CORPORATE SOURCE: School of Chemistry, The University of Sydney, 2006, Australia
 SOURCE: Bioorganic & Medicinal Chemistry (2007), 15(15),

5158-5165
CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:109095

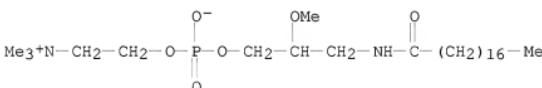
AB The antifungal, antibacterial and haemolytic activity of a series of alkylphosphocholines (e.g., miltefosine) and alkylglycerophosphocholines (e.g., edelfosine) has been investigated. These compound classes exhibit significant antifungal and moderate antibacterial activities. Several new alkylphosphocholine derivs. with amide or ester bonds in the alkyl chain have been synthesized. These compds. show much lower haemolytic activity than miltefosine. Alkylphosphocholines and alkylglycerophosphocholines show significant promise as novel orally available antifungal and antibacterial therapeutics.

IT 88876-07-7

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antifungal, antimicrobial and hemolytic activity of alkylphospholipids)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:198407 CAPLUS

DOCUMENT NUMBER: 144:403777

TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene

AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco; Stockwell, Brent R.

CORPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA

SOURCE: Cancer Cell (2006), 9(2), 133-146
CODEN: CCAECI; ISSN: 1535-6108

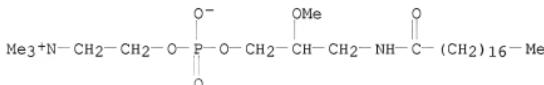
PUBLISHER: Cell Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analogs of 1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II α , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex

as a candidate indoxin target.
IT 88876-07-7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(small mols. which overcome drug resistance induced by a viral oncogene)
RN 88876-07-7 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

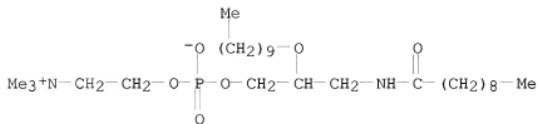
L3 ANSWER 5 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:904330 CAPLUS
DOCUMENT NUMBER: 143:222464
TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses
INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng; Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.
PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA
SOURCE: U.S. Pat. Appl. Publ., 36 pp.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 20050187192 | A1 | 20050825 | US 2004-783927 | 20040220 |
| PRIORITY APPLN. INFO.: | | | US 2004-783927 | 20040220 |

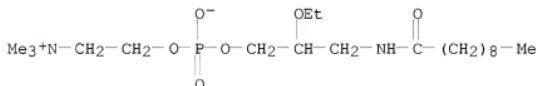
OTHER SOURCE(S): MARPAT 143:222464
AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 $\mu\text{g}/\text{mL}$.

IT 252371-27-0 443882-90-4 443882-91-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(phospholipids for treatment of infection by togaviruses, herpes
viruses and coronaviruses)
RN 252371-27-0 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,

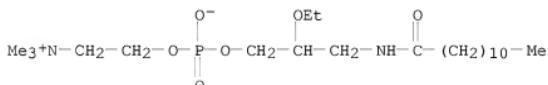
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 443882-90-4 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)



RN 443882-91-5 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)



L3 ANSWER 6 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:902611 CAPLUS
DOCUMENT NUMBER: 143:241938
TITLE: Methods and compositions for the treatment of respiratory syncytial virus
INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang, Yunsheng; Read, Russ H.; Furman, Phillip A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 29 pp.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| US 20050187191 | A1 | 20050825 | US 2004-781894 | 20040220 |
| WO 2005099719 | A2 | 20051027 | WO 2005-US3972 | 20050209 |
| WO 2005099719 | A3 | 20070322 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
 SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

OTHER SOURCE(S): MARPAT 143:241938

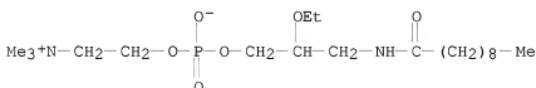
AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for treatment of respiratory syncytial virus)

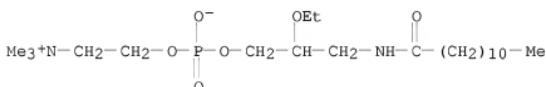
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



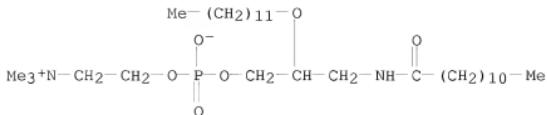
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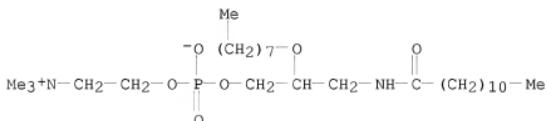
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

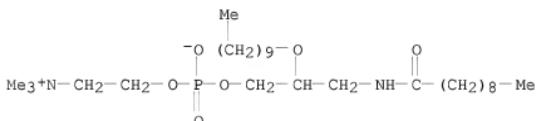
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



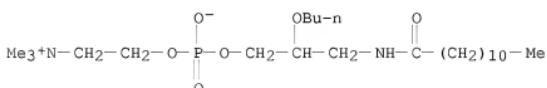
RN 207298-93-9 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 252371-27-0 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 443882-96-0 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
 INDEX NAME)



L3 ANSWER 7 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:392356 CAPLUS

DOCUMENT NUMBER: 137:119058

TITLE: Structure-Activity Relationship for Enhancement of Paracellular Permeability across Caco-2 Cell Monolayers by 3-Alkylamido-2-alkoxypropylphosphocholines

AUTHOR(S): Ouyang, Hui; Morris-Natschke, Susan L.; Ishaq, Khalid

S.; Ward, Peter; Liu, Dongzhou; Leonard, Sarah;
 Thakker, Dhiren R.
CORPORATE SOURCE:
 Divisions of Medicinal Chemistry and Natural Products
 and Drug Delivery and Disposition School of Pharmacy
 and Department of Pharmacology School of Medicine, The
 University of North Carolina at Chapel Hill, Chapel
 Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (2002), 45(13),
 2857-2866

CODEN: JMCMAR; **ISSN:** 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:119058

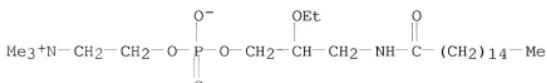
AB Paracellular permeability enhancers have been used to improve the oral bioavailability of hydrophilic drugs; however, the mechanism of action of many enhancers is poorly understood. In this study, highly potent enhancers of paracellular permeability were identified in the 3-alkylamido-2-alkoxypropylphosphocholine series, and a structure-activity relationship was developed for enhancement of paracellular permeability across Caco-2 cell monolayers. Compds. with short (<5 carbons) hydrocarbon chains at both C-2 and C-3 were generally inactive. The potency exhibited a parabolic relationship with respect to the chain length at either C-2 or C-3. Linear mols. (i.e., compds. with a short hydrocarbon chain at C-2 or C-3 and a long hydrocarbon chain on C-3 or C-2, resp.) were more potent than the corresponding branched mols. with the same carbon load. The efficacy of 3-alkylamido-2-alkoxypropylphosphocholines as enhancers of paracellular permeability was not dependent on their existence in micellar form or their ability to alter the fluidity of cell membrane. Previously, a correlation between the potency of alkylphosphocholines as enhancers of paracellular permeability and the inhibitors of phospholipase C (PLC) was established in Madine Darby canine kidney (MDCK) cell monolayers. The potencies of selected 3-alkylamido-2-alkoxypropylphosphocholines as inhibitors of PLC and enhancers of paracellular permeability fit well into this correlation. Therefore, phosphocholines are likely to increase paracellular permeability by modulating the signal transduction pathway initiated by a PLC-catalyzed reaction rather than by phys. altering the cell membrane.

IT 112989-01-2 149576-20-5 207298-91-7
 207298-92-8 207298-93-9 207298-94-0
 207298-95-1 207298-97-3 207298-99-5
 252371-26-9 252371-27-0 443883-01-0

RL: PAC (Pharmacological activity); BIOL (Biological study)
 (structure-activity relationship for enhancement of paracellular
 permeability across Caco-2 cell monolayers by
 3-alkylamido-2-alkoxypropylphosphocholines)

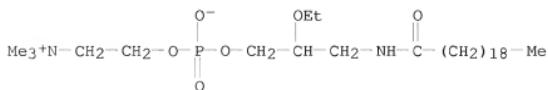
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
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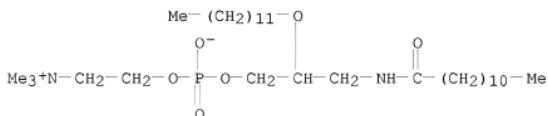
RN 149576-20-5 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,

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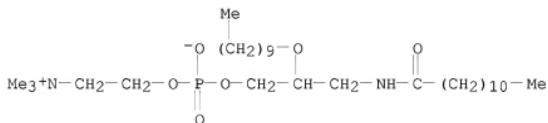
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CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
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(9CI) (CA INDEX NAME)



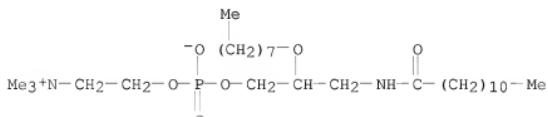
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
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(CA INDEX NAME)



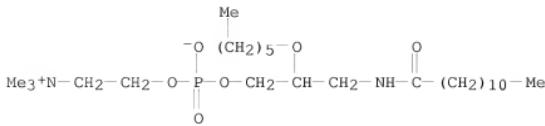
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
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(CA INDEX NAME)



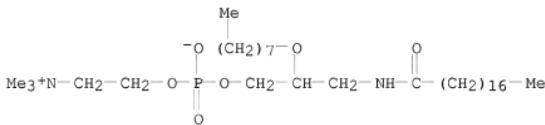
RN 207298-94-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-(hexyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



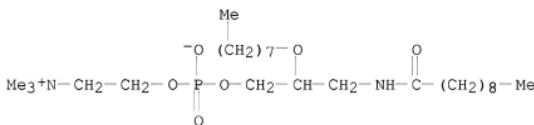
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CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
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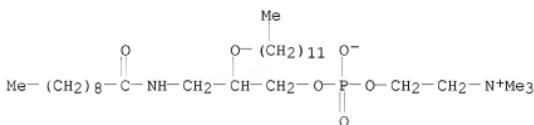
RN 207298-97-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
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(CA INDEX NAME)



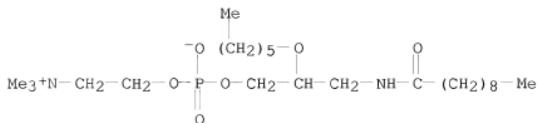
BN 207298-99-5 CAPLUS

IR: 2950, 1700, 1650, 1500, 1450, 1350, 1250, 1100, 1000, 900, 800, 700 cm⁻¹.
CN: 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)

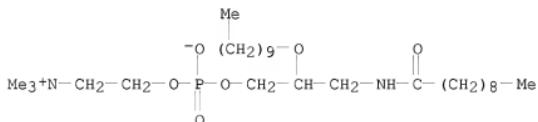


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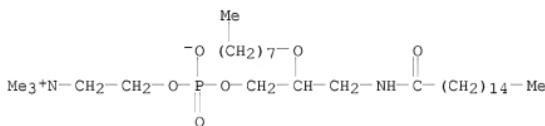
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(hexyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 252371-27-0 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphanodecan-1-aminium,
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 (CA INDEX NAME)

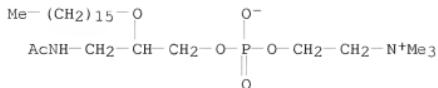


RN 443883-01-0 CAPLUS
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 (CA INDEX NAME)

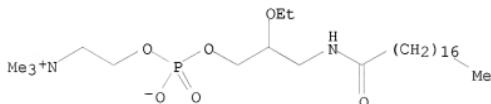


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 443882-94-8P 443882-95-9P 443882-96-0P
 443882-97-1P 443882-98-2P 443883-00-9P
 443883-02-1P 443883-03-2P 443883-04-3P
 443883-06-5P 443883-08-7P 443883-10-1P
 443883-11-2P 443883-13-4P 443883-14-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation)
 (structure-activity relationship for enhancement of paracellular
 permeability across Caco-2 cell monolayers by
 3-alkylamido-2-alkoxypropylphosphocholines)

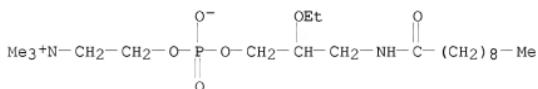
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 (CA INDEX NAME)



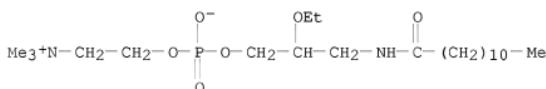
RN 112989-02-3 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
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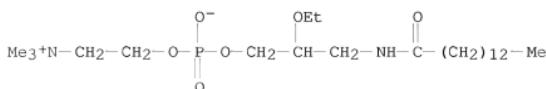
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RN 443882-91-5 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

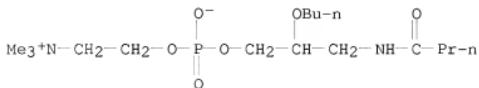


RN 443882-92-6 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphatricosan-1-aminium,
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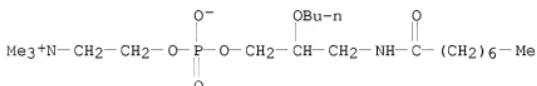


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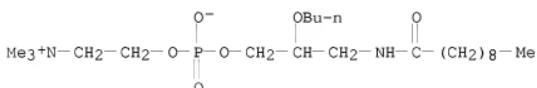
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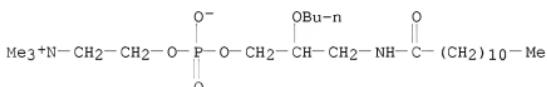
RN 443882-94-8 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphahetedecan-1-aminium,
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)



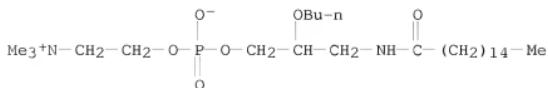
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CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
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INDEX NAME)



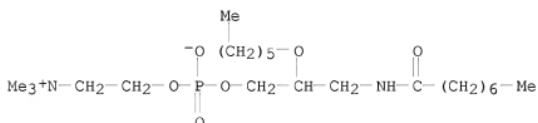
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INDEX NAME)



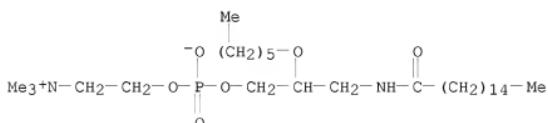
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INDEX NAME)



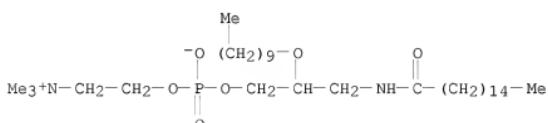
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(CA INDEX NAME)



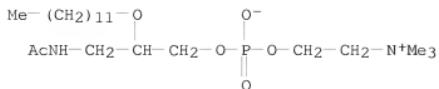
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CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
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(CA INDEX NAME)



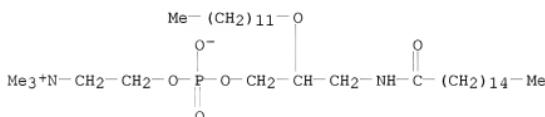
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(CA INDEX NAME)



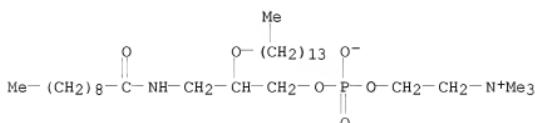
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(9CI) (CA INDEX NAME)



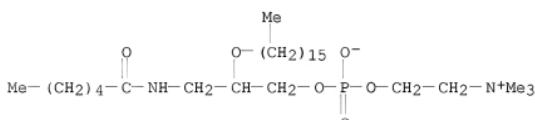
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(9CI) (CA INDEX NAME)



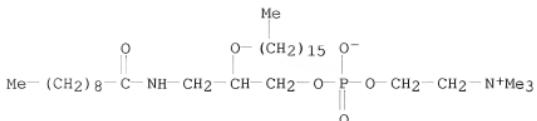
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(9CI) (CA INDEX NAME)



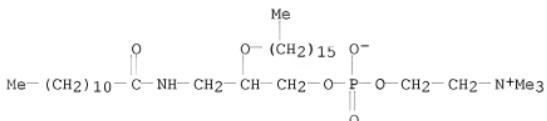
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(9CI) (CA INDEX NAME)



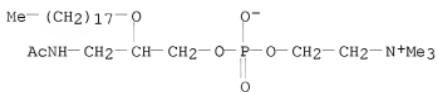
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(9CI) (CA INDEX NAME)



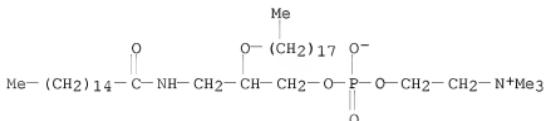
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 (9CI) (CA INDEX NAME)



RN 443883-13-4 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphaundecan-1-aminium,
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 (9CI) (CA INDEX NAME)



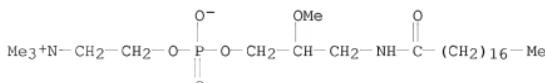
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 (9CI) (CA INDEX NAME)



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

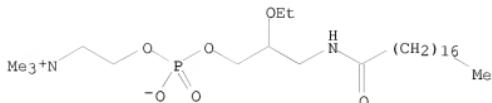
L3 ANSWER 8 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1999:655362 CAPLUS
 DOCUMENT NUMBER: 132:40418
 TITLE: Structure-Activity Relationships for Enhancement of
 Paracellular Permeability by
 2-Alkoxy-3-alkylamidopropylphosphocholines across

Caco-2 Cell Monolayers
 AUTHOR(S): Liu, Dong-Zhou; Morris-Natschke, Susan L.; Kucera, Louis S.; Ishaq, Khalid S.; Thakker, Dhiren R.
 CORPORATE SOURCE: Division of Drug Delivery and Disposition and Division of Medicinal Chemistry and Natural Products School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-7360, USA
 SOURCE: Journal of Pharmaceutical Sciences (1999), 88(11), 1169-1174
 CODEN: JPMSAE; ISSN: 0022-3549
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
AB The oral route is the preferred route of delivery for a large number of drug mols. However, the intestinal epithelium presents a formidable barrier for delivery of drugs into systemic circulation. Phospholipids are among compds. that enhance the absorption of drugs across the intestinal epithelium. In this paper, we describe structure-activity relationships for phospholipid derivs. as enhancers of paracellular permeability across Caco-2 cell monolayers. In a series of 2-alkoxy-3-alkylamidopropylphosphocholine derivs., compds. with a long chain at C-3 (R3) and short chain at C-2 (R2) were potent in causing a decrease in transepithelial elec. resistance (TEER) and an increase in mannitol transport, but also showed significant cytotoxicity. Compds. with 9-11 carbons at C-3 and 6-10 carbons at C-2 provided good separation (up to 2.7-fold) between activity and cytotoxicity. Notably, a good correlation ($r^2 = 0.93$) was observed between EC50 (TEER) [concentration that caused a drop in TEER to 50% of its control (untreated) value] and EC10+ (mannitol) [concentration that caused 10-fold increase in mannitol transport over the control (untreated) value], confirming that a decrease in TEER is associated with enhanced permeability of the hydrophilic compds. across Caco-2 cell monolayers. Compds. with medium to long carbon chains at C-2 and C-3, and the total carbons in the alkyl chains > 20, showed poor activity and no cytotoxicity.
IT 88876-07-7 112989-02-3 149576-20-5
 207298-91-7 207298-92-8 207298-93-9
 207298-95-1 207298-99-5 252371-25-8
 252371-26-9 252371-27-0
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (structure-activity relationships for enhancement of paracellular permeability by 2-alkoxy-3-alkylamidopropylphosphocholines across Caco-2 cell monolayers)
RN 88876-07-7 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



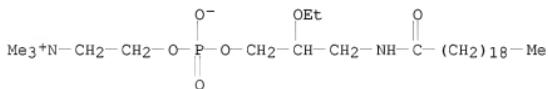
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 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX)

NAME)



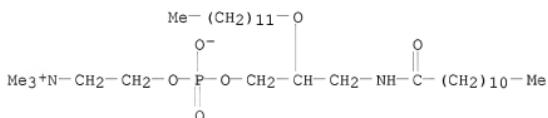
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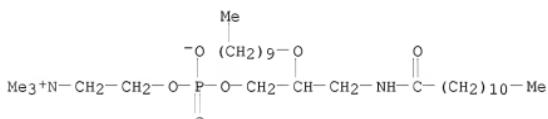
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CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
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(9CI) (CA INDEX NAME)



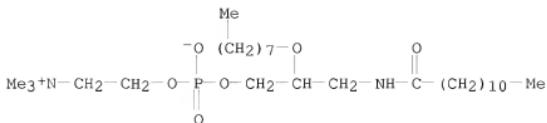
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(CA INDEX NAME)



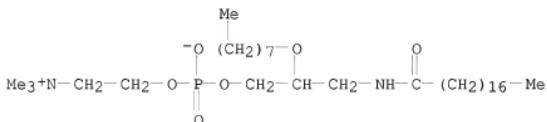
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(CA INDEX NAME)



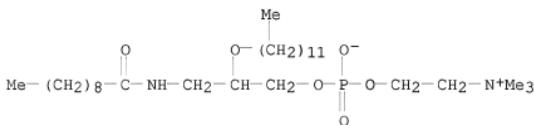
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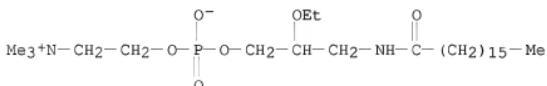
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(9CI) (CA INDEX NAME)



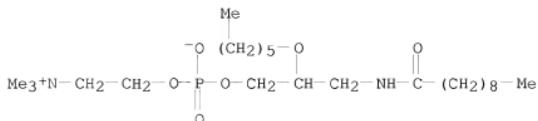
RN 252371-25-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)

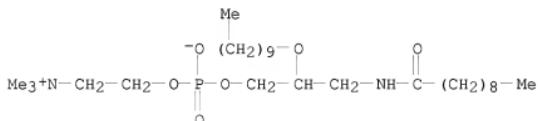


RN 252371-26-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 252371-27-0 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



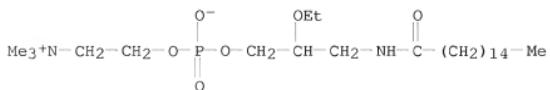
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1998:435743 CAPLUS
 DOCUMENT NUMBER: 129:90448
 ORIGINAL REFERENCE NO.: 129:18491a,18494a
 TITLE: Method of treating hepatitis virus infections
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.
 PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina
 SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 5770584 | A | 19980623 | US 1995-465947 | 19950606 |
| US 6030960 | A | 20000229 | US 1998-102308 | 19980622 |
| PRIORITY APPLN. INFO.: | | | US 1993-74943 | B2 19930610 |
| | | | US 1995-465947 | A3 19950606 |

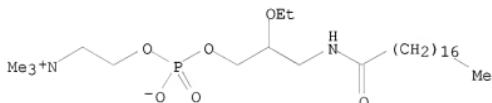
OTHER SOURCE(S): MARPAT 129:90448
 AB A method of treating hepatitis virus infection is disclosed. The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative
 IT 112989-01-2P 112989-02-3P 209532-02-5P
 209532-03-6P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (alkyl lipids for treating hepatitis virus infections)
 RN 112989-01-2 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

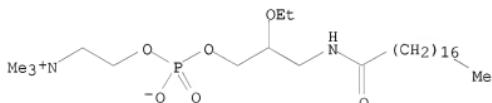
CN 3,5-Dioxa-9-aza-4-phosphaheneptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CI) (CA INDEX NAME)

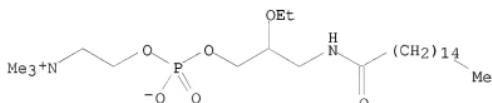
Rotation (+).



RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a

TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

PUBLISHER: International Medical Press

DOCUMENT TYPE: Journal

LANGUAGE: English

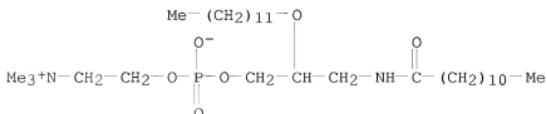
AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

IT
 207298-91-7P 207298-92-8P 207298-93-9P
 207298-94-0P 207298-95-1P 207298-97-3P
 207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

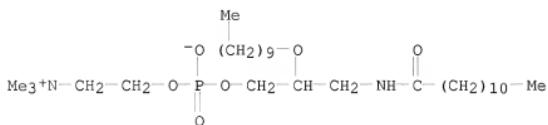
RN: 207298-91-7 CAPLUS

CN: 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)



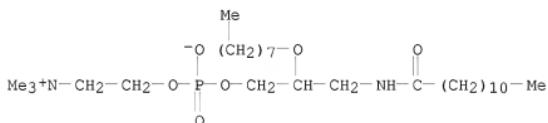
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



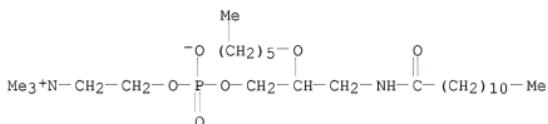
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



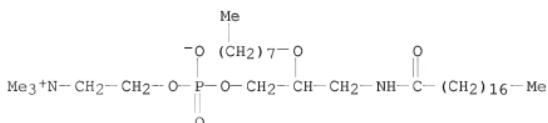
RN 207298-94-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 207298-95-1 CAPLUS

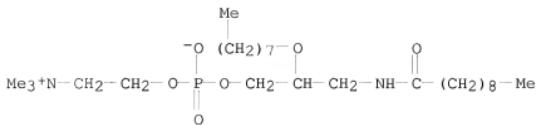
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 207298-97-3 CAPLUS

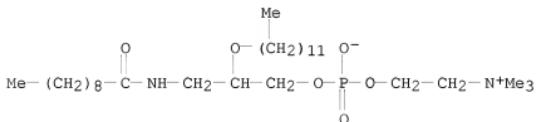
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)

(CA INDEX NAME)



RN 207298-99-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(dodecyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)

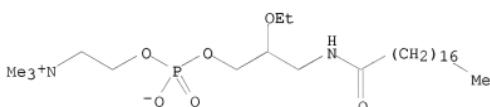


IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahaheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:388263 CAPLUS

DOCUMENT NUMBER: 125:49273

ORIGINAL REFERENCE NO.: 125:9233a,9236a

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.

PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina at Chapel Hill

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9606620 | A2 | 19960307 | WO 1995-US10111 | 19950807 |
| WO 9606620 | A3 | 19960613 | | |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2197319 | A1 | 19960307 | CA 1995-2197319 | 19950807 |
| AU 9532166 | A | 19960322 | AU 1995-32166 | 19950807 |
| EP 781138 | A2 | 19970702 | EP 1995-928365 | 19950807 |
| EP 781138 | B1 | 20080521 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| JP 10506619 | T | 19980630 | JP 1995-508773 | 19950807 |
| EP 1852121 | A2 | 20071107 | EP 2007-16369 | 19950807 |
| EP 1852121 | A3 | 20071121 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| AT 395922 | T | 20080615 | AT 1995-928365 | 19950807 |
| US 5962437 | A | 19991005 | US 1997-793470 | 19970502 |
| US 7129227 | B1 | 20061031 | US 1999-412539 | 19991004 |
| US 20040259845 | A1 | 20041223 | US 2004-889127 | 20040713 |
| US 7135584 | B2 | 20061114 | | |
| US 20050080050 | A1 | 20050414 | US 2004-943923 | 20040920 |
| US 7141557 | B2 | 20061128 | | |
| JP 2007056033 | A | 20070308 | JP 2006-278049 | 20061011 |
| US 20070099870 | A1 | 20070503 | US 2006-588313 | 20061027 |
| US 7294621 | B2 | 20071113 | | |
| US 20070105811 | A1 | 20070510 | US 2006-588308 | 20061027 |
| US 7294619 | B2 | 20071113 | | |
| US 20070105812 | A1 | 20070510 | US 2006-588311 | 20061027 |
| US 7294620 | B2 | 20071113 | | |
| US 20080293667 | A1 | 20081127 | US 2007-980819 | 20071031 |
| PRIORITY APPLN. INFO.: | | | US 1994-297416 | A 19940829 |
| | | | US 1994-314901 | A 19940929 |
| | | | EP 1995-928365 | A3 19950807 |
| | | | JP 1996-508773 | A3 19950807 |
| | | | WO 1995-US10111 | W 19950807 |
| | | | US 1997-793470 | A3 19970502 |
| | | | US 1999-412539 | B1 19991004 |
| | | | US 1999-412253 | A1 19991005 |
| | | | US 2004-889127 | A3 20040713 |
| | | | US 2004-943923 | A3 20040920 |
| | | | US 2006-588313 | A3 20061027 |

OTHER SOURCE(S): MARPAT 125:49273

AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decyldpropyl-3-phosphocholine showed IC50 value of 0.14 μ M against HIV-1 syncytial plaque formation.

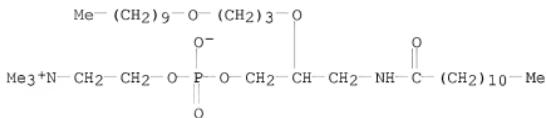
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

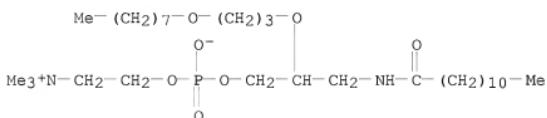
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treating viral infections and tumors)

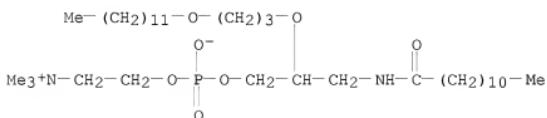
RN 178172-98-0 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



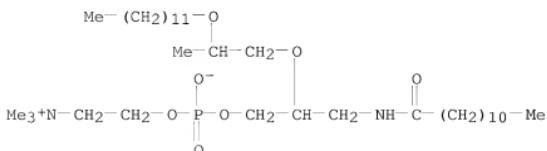
RN 178172-99-1 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 CAPLUS
CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-
oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N,N-trimethyl-, inner
salt (CA INDEX NAME)



L3 ANSWER 12 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:701769 CAPLUS

DOCUMENT NUMBER: 123:112632

ORIGINAL REFERENCE NO.: 123:20141a,20144a

TITLE: Phospholipids for combating hepatitis B virus infection

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

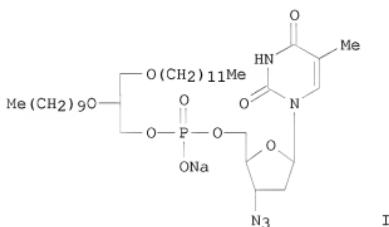
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 9428908 | A2 | 19941222 | WO 1994-US5855 | 19940525 |
| WO 9428908 | A3 | 19950323 | | |
| W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2164717 | A1 | 19941222 | CA 1994-2164717 | 19940525 |
| AU 9470448 | A | 19950103 | AU 1994-70448 | 19940525 |
| EP 702556 | A1 | 19960327 | EP 1994-919231 | 19940525 |
| EP 702556 | B1 | 20021023 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| AT 226437 | T | 20021115 | AT 1994-919231 | 19940525 |
| PRIORITY APPLN. INFO.: | | | US 1993-74943 | A 19930610 |
| | | | WO 1994-US5855 | W 19940525 |

OTHER SOURCE(S): MARPAT 123:112632

GI



I

AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH2XCH2YR1 [Y = S, O, NH, NMe, NHCO, NMeCO; R1 = (un)branched (un)saturated C10-20 alk(en/yn)yl; X = bond, CH2 (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO4)-E, N+R5R6FW Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R5, R6 = H, alkyl; W = OH, SH; Z- = anion]. Several compds.

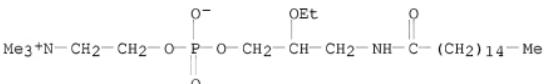
were prepared. For example, etherification of isopropylidene glycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et2O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph3CCl in pyridine, 2-O-alkylation by 1-bromododecane and NaH in THF (51%), and detritylation by p-MeC6H4SO3H in CHCl3-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)2P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, (±)-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddc.

IT 112989-01-2P 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of phospholipids for combating hepatitis B virus)

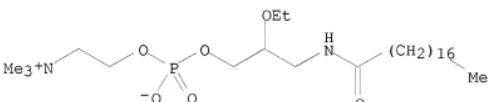
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 13 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:694404 CAPLUS

DOCUMENT NUMBER: 123:160151

ORIGINAL REFERENCE NO.: 123:28207a,28210a

TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody

AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri;
Iyer, Nathan; Neufeld, Jay; Kute, Timothy;
Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi,
Claude; Kucera, Louis S.

CORPORATE SOURCE: Wake Forest University, Winston-Salem, NC, 27157-1064,
USA

SOURCE: AIDS Research and Human Retroviruses (1995), 11(6),
705-12

CODEN: ARHRE7; ISSN: 0889-2229
PUBLISHER: Liebert

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

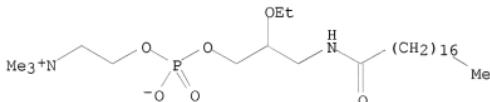
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 14 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:289590 CAPLUS

DOCUMENT NUMBER: 120:289590

ORIGINAL REFERENCE NO.: 120:50755a,50758a

TITLE: Superoxide production by macrophages stimulated in vivo with synthetic ether lipids

AUTHOR(S): Schreiber, Barbara M.; Layne, Matthew D.; Modest, Edward J.

CORPORATE SOURCE: Sch. Med., Boston Univ., Boston, MA, 02118, USA

SOURCE: Lipids (1994), 29(4), 237-42

CODEN: LPDSAP; ISSN: 0024-4201

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The anticancer activity of synthetic ether lipids may depend in part upon their ability to activate cells of the monocyte/macrophage lineage. In the present study, the authors have sought to determine whether 1-O-octadecyl-2-O-methyl-rac-glycero-3-phosphocholine (ET-18-OMe) and related ether lipids enhance superoxide production by mouse peritoneal macrophages. Ether lipids were administered i.p. to C57BL/6 mice 4 days

after injection with thioglycollate broth. Elicited peritoneal macrophages were harvested and purified one day later, and superoxide production was detected by measuring the superoxide dismutase inhibitable reduction of cytochrome c. Low levels of superoxide were secreted by macrophages in the absence of phorbol 12-myristate 13-acetate (PMA). When PMA was added *in vitro* to macrophages from ET-18-OMe-treated mice, these cells secreted 194.2 nmol superoxide/mg protein in comparison to 53.5 nmol superoxide/mg protein for PMA-treated control cells. The *in vitro* treatment of the macrophages with ET-18-OMe was not effective in stimulating superoxide secretion. Macrophages harvested from mice treated with a series of ether lipids (with and without phosphorus) were examined, and superoxide secretion was found to vary with structure. AM-18-OEt and CP-7 were the most effective compds., secreting 8.6 and 11.9 times more superoxide, resp., than PMA-stimulated control cells. Moreover, direct cytotoxicity of the compds. for HL60 human promyelocytic leukemic cells did not necessarily correlate with the ability of each drug to increase macrophage superoxide production

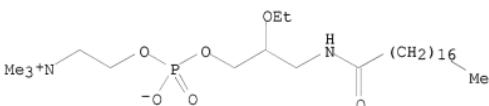
IT 112989-02-3

RL: BIOL (Biological study)

(superoxide formation by macrophages response to, cytotoxicity in relation to, in human and laboratory animal cells)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 15 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:640914 CAPLUS

DOCUMENT NUMBER: 119:240914

ORIGINAL REFERENCE NO.: 119:42662h,42663a

TITLE: Effects of structural modifications of ether lipids on antiproliferative activity against human glioma cell lines

AUTHOR(S): Berens, Michael E.; Bar-Shira, Enav; Rosenblum, Mark L.; Piantadosi, Claude; Modest, Edward J.

CORPORATE SOURCE: Sch. Med., Univ. California, San Francisco, CA, 94143, USA

SOURCE: Anticancer Research (1993), 13(2), 401-5

DOCUMENT TYPE: CODEN: ANTRD4; ISSN: 0250-7005

LANGUAGE: Journal

AB The effect of structural modifications of ether lipids on antiproliferative activity was studied in four human glioma cell lines.

Drug potency, determined by microtetrazolium assay, varied 7- to 30-fold. CP 46,665 was most potent; Amido-18-OEt was least potent. Antiproliferative activity was highly dependent on drug exposure time. Except for CP 46,665, which reached maximal activity after 2 h, 40 μ M ether lipids were effective only after 24 h. Structural modifications of ether lipids can increase their potency and reduce the time required for antiproliferative activity. Ether lipid analogs may be useful for treating human gliomas.

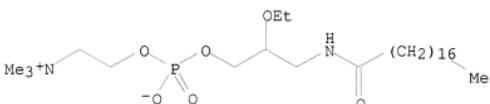
IT 112989-02-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antiproliferative activity of, against human glioma cell lines, structure in relation to)

BN 112989-02-3 CARLIIS

RN 11296-02-3 CAS 605
CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



13 ANSWER 16 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:539633 CAPLUS

DOCUMENT NUMBER: 119:139633

DOCUMENT NUMBER: 119:119000
ORIGINAL REFERENCE NO.: 119:25071a-25074a

ORIGINAL REFERENCE NO.: 112-12514-200001
TITLE: Synthesis of phosphocholine and quaternary amine ether lipids and evaluation of in vitro antineoplastic activity

AUTHOR(S): Morris-Natschke, Susan L.; Gumus, Fatma; Marasco, Canio J., Jr.; Meyer, Karen L.; Marx, Michael; Piantadosi, Claude; Layne, Matthew D.; Modest, Edward J.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,
27599, USA

SOURCE: Journal of Medicinal Chemistry (1993), 36(14), 2018-25
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



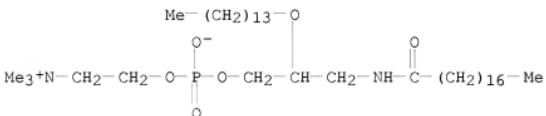
AB The *in vitro* antineoplastic activity of phosphocholines, e.g. I, and quaternary amine ether lipids, e.g. II ($R = 3$ -hydroxymethylpyridinium bromide), has been evaluated in the HL-60 promyelocytic cell line. These compds. are analogs of ET-18-OMe (1-O-octadecyl-2-O-methyl-rac-glycero-3-phosphocholine). Structural modification of 1-(alkylamido)-, -(alkylthio)-, and -(alkyloxy)propyl backbones has provided further insight into the structure-activity relationships of these lipids. In this study, a long saturated C-1 chain and a three-carbon backbone with a single short C-2 substituent were preferred. At the pos. charged nitrogen of phosphocholines, fewer than three substituents caused a significant loss of activity, and substituents larger than Me decreased activity slightly. In the nonphosphorus compds., many nitrogen heterocycles and also a sulfonium moiety were incorporated without changing the degree of activity; however, a thiazolium group decreased activity. II was approx. twice as active as the reference standard, ET-18-OMe, in a trypan blue dye exclusion assay.

IT 149576-17-0P 149576-20-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antitumor activity of)

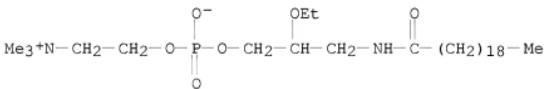
RN 149576-17-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-(tetradecyloxy)-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)



L3 ANSWER 17 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:256943 CAPLUS

DOCUMENT NUMBER: 118:256943

ORIGINAL REFERENCE NO.: 118:44629a,44632a

TITLE: Multigram synthesis of 1-alkylamido phospholipids
AUTHOR(S): Surles, Jefferson R.; Morris-Natschke, Susan; Marx,
Michael H.; Piantadosi, Claude

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,
27599-7360, USA

SOURCE: Lipids (1993), 28(1), 55-7
CODEN: LPDSAP; ISSN: 0024-4201

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The multigram synthesis of 1-alkylamido ether phospholipids was
accomplished by modifying reaction conditions in the amidation step and
changing reagents and solvent systems in both the deprotection and
phosphorylation steps. This was most crucial in the phosphorylation step,
where in the multigram synthesis 2-bromoethyl dichlorophosphate in 7:3
volume ratio Et₂O-THF gave much improved yields compared to the
2-chloro-2-oxo-1,3,2-dioxaphospholane reagent. The modifications also
resulted in a product that could be more easily purified in sufficient
quantities for use in *in vivo* inhibition studies.

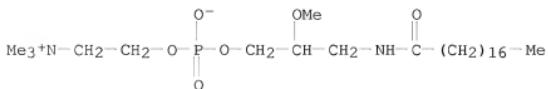
IT 88876-07-7P 112989-00-1P 112989-01-2P
112989-02-3P

RL: PREP (Preparation)
(production of, in gram quantities)

RN 88876-07-7 CAPLUS

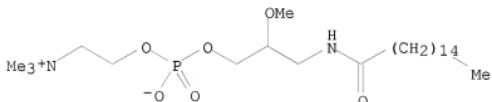
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



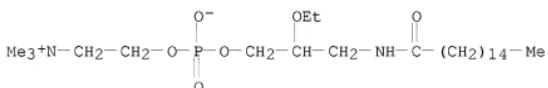
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



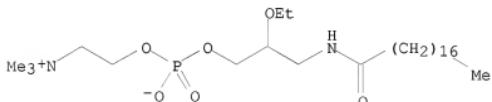
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 18 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:185901 CAPLUS

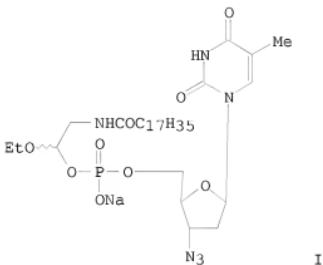
DOCUMENT NUMBER: 114:185901

ORIGINAL REFERENCE NO.: 114:31415a,31418a

TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity

AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera,

CORPORATE SOURCE: Louis S.; Iyer, Nathan; et al.
 Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,
 27599, USA
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14
 DOCUMENT TYPE: CODEN: JMCMAR; ISSN: 0022-2623
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 114:185901
 GI



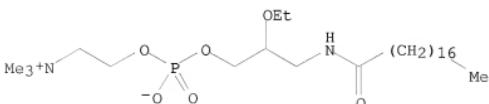
AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O)-OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkylxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

IT 112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(anti-HIV-1 activity of)

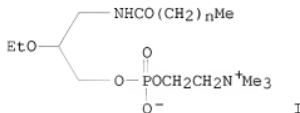
RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



L3 ANSWER 19 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1991:185881 CAPLUS
DOCUMENT NUMBER: 114:185881
ORIGINAL REFERENCE NO.: 114:31411a,31414a

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents
 AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Piantadosi, Claude; Kucera, Louis S.
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 114:185881
 GI



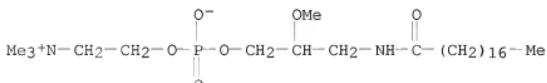
AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypyropylphosphocholine (I). I exhibited an IC₅₀ for the inhibition of plaque formation of 0.16 μM which was 84-fold lower than the IC₅₀ value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

IT 88876-07-7 112989-00-1 112989-01-2
112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(anti-HIV-1 activity of)

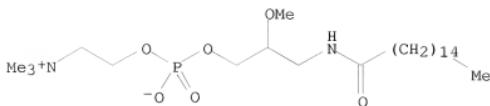
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
INDEX NAME)

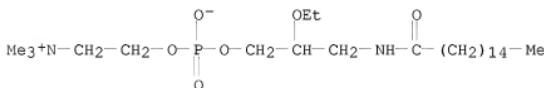


RN 112989-00-1 CAPLUS

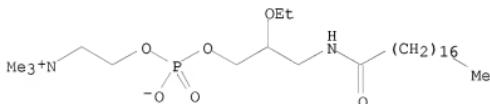
CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



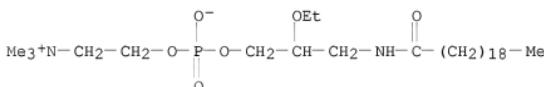
RN 112989-01-2 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7'-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
 NAME)



RN 112989-02-3 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
 7'-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
 NAME)



IT 149576-20-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and anti-HIV-1 activity of)
 RN 149576-20-5 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,
 7'-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
 INDEX NAME)



L3 ANSWER 20 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1990:544660 CAPLUS
 DOCUMENT NUMBER: 113:144660
 ORIGINAL REFERENCE NO.: 113:24355a,24356a
 TITLE: Pharmacological effects and anticancer activity of new
 ether phospholipid analogs
 AUTHOR(S): Modest, E. J.; Berens, M. E.; Piantadosi, C.; Noseda,
 A.
 CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ.,

SOURCE: Winston-Salem, NC, 27103, USA
Pharmacol. Eff. Lipids 3 (1989), 330-7. Editor(s):
Kabara, Jon J. AOCS: Champaign, Ill.
CODEN: 56UEAF

DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

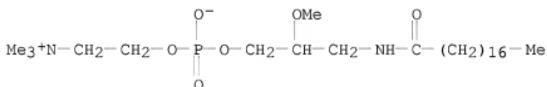
AB A review with 27 refs. Bioactive phospholipid analogs (ether lipids, EL) of platelet activating factor (1-alkyl-2-acetyl-sn-glycero-3-phosphocholine) inhibit neoplastic cell growth in vitro and in vivo. The efforts were aimed at the synthesis and pharmacol. evaluation of ether lipid analogs designed to be active against exptl. tumors in vitro and in vivo. The in vitro activity of new thio and amido analogs is currently under investigation. The influence of EL on the morphol. and phys. properties of membranes is examined. The possibility of use of membrane-interactive EL in combination with classic antineoplastic DNA-interactive agents is being explored.

IT 88876-07-7 112989-00-1 112989-01-2
112989-02-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm-inhibiting activity of, against human and laboratory animal cells, structure in relation to)

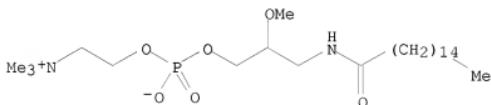
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



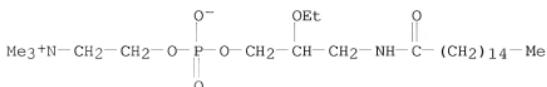
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)

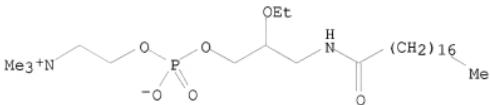


RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



L3 ANSWER 21 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

ORIGINAL REFERENCE NO.: 113:11741a,11744a

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

DOCUMENT TYPE: CODEN: ARHRE7; ISSN: 0889-2229
Journal

LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4 μ M) with alkoxy, alkylthio, or alkylamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63 μ M) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

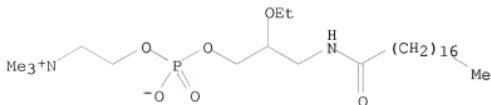
IT 112989-02-3

RL: BIOL (Biological study)
(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 22 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:459739 CAPLUS

DOCUMENT NUMBER: 113:59739

ORIGINAL REFERENCE NO.: 113:10127a,10130a

TITLE: Competitive inhibition of lipolytic enzymes. III.
Preparation of 'monoacylamino' phospholipids

AUTHOR(S): Dijkman, Ruud; Dekker, Niek; De Haas, Gerard H.

CORPORATE SOURCE: Dep. Biochem., State Univ. Utrecht, Utrecht, Neth.

SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid

Metabolism (1990), 1043(1), 67-74

CODEN: BBLLA6; ISSN: 0005-2760

DOCUMENT TYPE: Journal

LANGUAGE: English

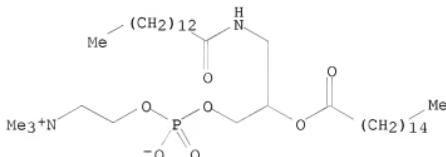
AB The synthesis of a number of phosphatidylcholines and phosphatidylglycols, in which one fatty acyl ester group is replaced by an acylamino function was described. The phospholipids, both of the α - and β -type, are prepared in racemic and enantiomeric pure forms.

IT 127641-85-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydrolysis of)

RN 127641-85-4 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetraacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxotetradecyl)amino]methyl-, inner
salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 23 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:419948 CAPLUS

DOCUMENT NUMBER: 113:19948

ORIGINAL REFERENCE NO.: 113:3373a,3376a

TITLE: Competitive inhibition of lipolytic enzymes. III.
Some acylamino analogs of phospholipids are potent
competitive inhibitors of porcine pancreatic
phospholipase A2

AUTHOR(S): De Haas, G. H.; Dijkman, R.; Van Oort, M. G.; Verger, R.

CORPORATE SOURCE:

Lab. Biochem., C.B.L.E., Utrecht, Neth.

SOURCE:

Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1990), 1043(1), 75-82
CODEN: BBLAA6; ISSN: 0005-2760

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Competitive inhibition of porcine pancreatic phospholipase A2 was studied in mixed-micellar systems composed of long- and medium-chain substrates, potential inhibitors, and detergents. A number of positional and stereoisomeric monoacylamino, acyloxyglycerophospholipids were investigated for their inhibitory properties, using as substrates the corresponding diacyl-sn-glycero-3-phospholipids possessing the same polar headgroup and identical acyl chain lengths. Based on a kinetic model applicable to water-insol. inhibitors, which allows a quant. comparison of the inhibitory power (Z) of the various phospholipid analogs, the following results were obtained: substitution of a single acylester bond in a diacylglycerophospholipid by an acylamino group can transform the substrate mol. into a potent competitive inhibitor. This property is acquired only when this substitution occurs on the phospholipid-susceptible ester bond of the substrate. If the acylamino group replaces an ester bond which cannot be attacked by the highly positional and stereospecific phospholipase, the resulting mol. binds with similar affinity to the active site of the enzyme as the parent substrate mol. Because of its positional and stereospecificity, this so-called inhibitory amide effect suggests that these inhibitors behave as substrate-derived analogs. The inhibitory amide effect observed with several medium- and long-chain monoacyloxy-, monoacylamino-deoxyglycerophosphatides is completely lost upon specific alkaline hydrolysis of the single acylester bond. Reesterification of the free glycerol OH group in these lysocacylaminophosphoglycerides, even with an acetyl residues, restores the inhibitory properties. These observations indicate that specific binding of phospholipids to the active site of pancreatic phospholipase A2, requires the presence of 2 chains in substrate or inhibitor structure and suggest that those results obtained with lysophospholipids and single-chain analogs may be questionable.

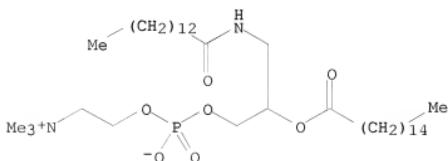
IT 127641-85-4

RL: BIOL (Biological study)

(phospholipase A2 of pancreas inhibition by, kinetics of, structure in relation to)

RN 127641-85-4 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetraacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxotetradecyl)amino]methyl]-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 24 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

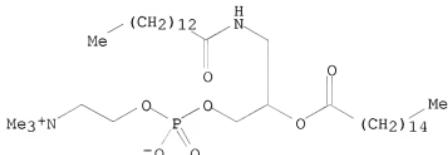
ACCESSION NUMBER: 1989:627660 CAPLUS

DOCUMENT NUMBER: 111:227660

ORIGINAL REFERENCE NO.: 111:37717a,37720a

TITLE: Purification and substrate specificity of

AUTHOR(S): Staphylococcus hyicus lipase
 Van Oort, Maarten G.; Deveer, Annemieke M. T. J.;
 Dijkman, Ruud; Tjeenk, Marijke Leuveling; Verheij,
 Hubertus M.; De Haas, Gerardus H.; Wenzig, Edda;
 Goetz, Fritz
 CORPORATE SOURCE: Dep. Biochem., State Univ. Utrecht, Utrecht, 3584 CH,
 Neth.
 SOURCE: Biochemistry (1989), 28(24), 9278-85
 CODEN: BICHAW; ISSN: 0006-2960
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The S. hyicus lipase gene has been cloned and expressed in Staphylococcus carnosus. From the latter organism the enzyme was secreted into the medium as a protein with an apparent mol. weight of 86 kDa. This protein was purified, and the N-terminal sequence showed that the primary gene product was indeed cleaved at the proposal signal peptide cleavage site. The protein was purified from large-scale preps. after tryptic digestion. This limited proteolysis reduced the mol. weight to 46 kDa and increased the specific activity .apprx.3-fold. Although the enzyme had a low specific activity in the absence of divalent cations, the activity increased .apprx.40-fold in the presence of Sr²⁺ or Ca²⁺. The purified lipase has a broad substrate specificity. The acyl chains were removed from the primary and secondary positions of natural neutral glycerides and from a variety of synthetic glyceride analogs. Thus, triglycerides were fully hydrolyzed to free fatty acid and glycerol. The enzyme hydrolyzed naturally occurring phosphatidylcholines, their synthetic short-chain analogs, and lysophospholipids to free fatty acids and water-soluble products. The enzyme had a 2-fold higher activity on micelles of short-chain D-lecithins than on micelles composed of the L-isomers. Thus, the enzyme from S. hyicus has lipase activity and also high phospholipase A and lysophospholipase activity.
 IT 127641-85-4
 RL: BIOL (Biological study)
 (lipase of Staphylococcus hyicus specificity for)
 RN 127641-85-4 CAPLUS
 CN 3,5,8-Trioxa-4-phosphatetraacosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxtetradecyl)amino]methyl-, inner
 salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 25 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1989:435594 CAPLUS
 DOCUMENT NUMBER: 111:35594
 ORIGINAL REFERENCE NO.: 111:6025a,6028a
 TITLE: Phospholipase A2 inhibitors: monoacyl,
 monoacylamino-glycero-phosphocholines
 AUTHOR(S): De Haas, Gerard H.; Van Oort, Maarten G.; Dijkman,
 Ruud; Verger, Robert
 CORPORATE SOURCE: Cent. Uithof, State Univ. Utrecht, NL-3584
 CH, Neth.

SOURCE:

Biochemical Society Transactions (1989), 17(2), 274-6

DOCUMENT TYPE:

CODEN: BCSTB5; ISSN: 0300-5127

LANGUAGE:

Journal

English

AB The relative affinities of natural lecithins and slightly modified lecithin analogs to the active site of porcine pancreatic phospholipase A2 were determined. Replacement of the phospholipase-fissile fatty acid ester bond in lecithins by an acylamino function forms potent competitive inhibitors. Substitution of the nonphospholipase-susceptible ester bond by the acylamino linkage does not increase affinity of the lecithin analog to the enzyme. Most probably the former lecithin analogs partially mimic the structure of the transition state and bind more tightly to the enzyme than the equivalent substrate mol.

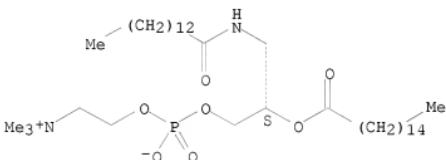
IT 121382-69-2

RL: BIOL (Biological study)
(phospholipase A2 inhibition by, kinetics of)

RN 121382-69-2 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetraacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxotetradecyl)amino]methyl-, inner
salt, 4-oxide, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 26 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:50719 CAPLUS

DOCUMENT NUMBER: 110:50719

ORIGINAL REFERENCE NO.: 110:8197a,8200a

TITLE: Effects of antineoplastic ether lipids on model and biological membranes

AUTHOR(S): Noseda, Alessandro; Godwin, Patrick L.; Modest, Edward J.

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake For. Univ., Winston-Salem, NC, USA

SOURCE: Biochimica et Biophysica Acta, Biomembranes (1988), 945(1), 92-100

CODEN: BBBMBS; ISSN: 0005-2736

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Differential scanning calorimetry and ESR were utilized to measure the effects of di-ether glycerophospholipid analogs (EL) on the phys. properties of model membranes and on the membrane fluidity of HL60 leukemic cells. 1-Octadecyl-2-methyl-rac-glycero-3-phosphocholine (ET-18-OMe) and 1-thiohexadecyl-2-ethyl-rac-glycero-3-phosphocholine (ET-165-OEt) lowered the transition temperature of dimyristoylphosphatidylcholine vesicles at 0.5-15 mol %. Studies conducted on the interaction of EL with a wide spectrum of different phospholipids, namely dipalmitoylphosphatidylcholine, 1-hexadecyl-2-palmitoylphosphatidylcholine, dipalmitoylphosphatidylethanolamine, and dielaidoylphosphatidylethanolamine confirmed the ability of EL to effect

the phys. properties of model membranes. Changes in calorimetric enthalpy were observed only with phosphatidylethanolamine-containing phospholipids. ET-18-OME and ET-16S-OEt increased the membrane fluidity of HL60 leukemic cells labeled with the fatty acid spin label probe 5-nitroxystearate. Thus, EL are able to partition into phospholipidic domains and to change their phys. properties. Furthermore, they affect the membrane fluidity of whole cells. These effects indicate an interaction between EL and the plasma membrane which may be of importance in determining the cytotoxic activity

against tumor cells exerted by EL.

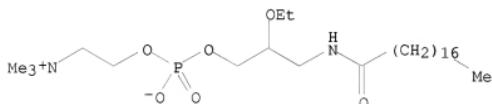
IT 112989-02-3

RL: PRP (Properties)

(membrane interaction of, neoplasm inhibition in relation to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 27 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:150866 CAPLUS

DOCUMENT NUMBER: 108:150866

ORIGINAL REFERENCE NO.: 108:24789a,24792a

TITLE: Synthesis and evaluation of neoplastic cell growth inhibition of 1-N-alkylamide analogs of glycerol-3-phosphocholine

AUTHOR(S): Marx, Michael H.; Piantadosi, Claude; Noseda, Alessandro; Daniel, Larry W.; Modest, Edward J.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27514, USA

SOURCE: Journal of Medicinal Chemistry (1988), 31(4), 858-63
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:150866

AB Previously unreported analogs of the synthetic antitumor phospholipid ET-18-OME (1-octadecyl-2-methoxy-rac-glycero-3-phosphocholine), in which the 1-ether oxygen has been replaced by an amido group, were prepared and evaluated for *in vitro* cytotoxic effects and for inhibition of protein kinase C. The title compds. RCONHCH₂CH(OR₁)CH₂OP(O)(O-)O(CH₂)₂N+Me₃ [R = Me(CH₂)₁₄, R₁ = Me, Et, H; R = Me(CH₂)₁₆, R₁ = Me, Et] were prepared from (+)-3-amino-1,2-propanediol in several steps. They showed cytotoxic effects against several tumor cell lines and were approx. equipotent to ET-18-OME. The compds. also inhibited protein kinase C in an *in vitro* assay.

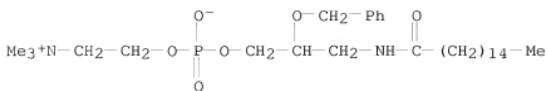
IT 112989-03-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and debenzylation of)

RN 112989-03-4 CAPLUS

CN Ethanaminium, 2-[(hydroxy[3-[(1-oxohexadecyl)amino]-2-(phenylmethoxy)propoxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



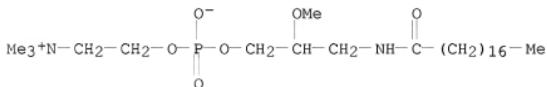
IT 88876-07-7P 112989-00-1P 112989-01-2P
 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and neoplasm inhibiting activity of)

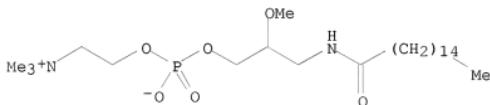
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



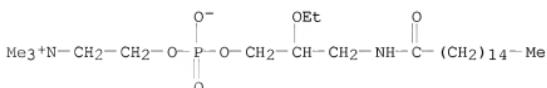
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



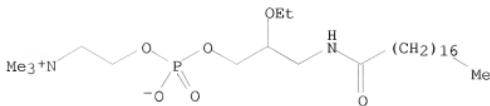
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 28 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:87587 CAPLUS

DOCUMENT NUMBER: 108:87587

ORIGINAL REFERENCE NO.: 108:14267/a,14270a

TITLE: Neoplastic cell inhibition with new ether lipid analogs

AUTHOR(S): Noseda, Alessandro; Berens, Michael E.; Piantadosi, Claude; Modest, Edward J.

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: Lipids (1987), 22(11), 878-83
CODEN: LPDSAP; ISSN: 0024-4201

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bioactive phospholipid analogs of platelet-activating factor (PAF) represent a new approach to cancer chemotherapy. Various modifications of the basic structure of PAF lead to different ether lipid (EL) analogs. Data from the evaluation of thioalkyl and amidoalkyl glycerophosphocholine and of glycerophosphoinositol EL analogs against different exptl. tumors in vitro (HL60 and K562 human leukemia cells, BG1 and BG3 ovarian adenocarcinomas) are presented. Exclusion of trypan blue after short exposure to the drugs determined cytotoxicity, and a soft agarose clonogenic assay measured the ability of the analogs to inhibit tumor cell proliferation. The thioalkyl EL are very active against the cell lines using both end points, and the amidoalkyl EL showed efficacy against the leukemic cell lines, whereas the phosphoinositol EL are active only at high concns. Combined use of EL analogs, which are membrane-interactive, with classical DNA-interactive chemotherapeutic drugs revealed that the combinations have additive antiproliferative effects. These results are promising leads in the development of the anticancer potential of ether lipid analogs. Structure activity relationship is discussed.

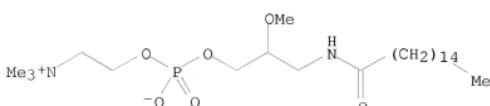
IT 112989-00-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neoplasm inhibition by)

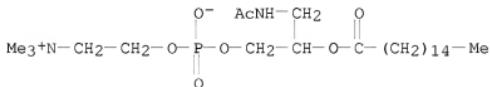
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)

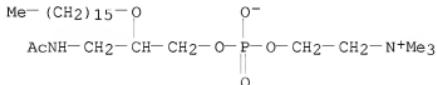


L3 ANSWER 29 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1987:422952 CAPLUS
 DOCUMENT NUMBER: 107:22952
 ORIGINAL REFERENCE NO.: 107:3871a,3874a
 TITLE: New potential immunoenhancing compounds. I.
 Syntheses of 1-amino-1-deoxyphosphatidylcholine
 derivatives
 AUTHOR(S): Canonica, Luigi; Nali, Micaela; Rindone, Bruno;
 Bosone, Enrico; Guazzi, Giuseppe; Innocenti, Sergio;
 Valcavi, Umberto
 CORPORATE SOURCE: Dip. Chim. Org. Ind., Univ. Milano, Milan, I-20133,
 Italy
 SOURCE: Gazzetta Chimica Italiana (1986), 116(1), 19-23
 DOCUMENT TYPE: CODEN: GCITA9; ISSN: 0016-5603
 LANGUAGE: Journal
 OTHER SOURCE(S): English
 CASREACT 107:22952
 AB Five RNHCH₂CH(OR1)CH₂OPO(O)(O-)OCH₂CH₂N+Me₃ [I; R = H, Ac; R1 = H, Me(CH₂)₁₄CO, Me(CH₂)₁₅] were prepared and tested as immune adjuvants. Thus, glycidol was treated with (PhCH₂)₂NH, and then Ph₃CCl in pyridine to give (PhCH₂)₂NCH₂CH(OH)CH₂OCPH₃, which was treated with NaH and PhCH₂Br in THF, followed by de tritylation with HCl to give (PhCH₂)₂NCH₂CH(OCH₂Ph)CH₂OH. Treating the latter compound with POC₁₃ and Et₃N in CHCl₃, followed by HOCH₂CH₂N+Me₃-O₃SC₆H₄Me-4 in pyridine, and then hydrogenolysis over Pd/C gave I (R = R1 = H). No significant immune enhancing activity was shown by any of the I.
 IT 108587-37-7P 108910-26-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and immune stimulant activity of)
 RN 108587-37-7 CAPLUS
 CN Ethanaminium, 2-[[[3-(acetylamino)-2-[(1-oxohexadecyl)oxy]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



RN 108910-26-5 CAPLUS
CN Ethanaminium, 2-[[[3-(acetylamino)-2-(hexadecyloxy)prooxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt
(CA INDEX NAME)

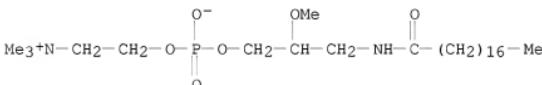


L3 ANSWER 30 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:138865 CAPLUS
DOCUMENT NUMBER: 100:138865
ORIGINAL REFERENCE NO.: 100:21183a, 21186a
TITLE: Phospholipid derivatives, and pharmaceutical composition containing them
INVENTOR(S): Teraji, Tsutomu; Todo, Eishiro; Shimazaki, Norihiko;

PATENT ASSIGNEE(S): Oku, Teruo; Namiki, Takayuki
 Fujisawa Pharmaceutical Co., Ltd. , Japan
 SOURCE: Eur. Pat. Appl., 33 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

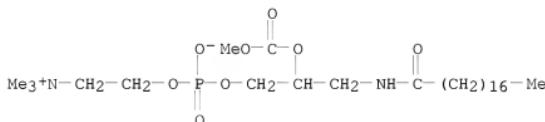
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| EP 92190 | A2 | 19831026 | EP 1983-103644 | 19830415 |
| EP 92190 | A3 | 19840201 | | |
| EP 92190 | B1 | 19860924 | | |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| US 4562179 | A | 19851231 | US 1983-482447 | 19830406 |
| DK 8301643 | A | 19831020 | DK 1983-1643 | 19830414 |
| JP 58189191 | A | 19831104 | JP 1983-67618 | 19830415 |
| PRIORITY APPLN. INFO.: | | | GB 1982-11284 | A 19820419 |

OTHER SOURCE(S): MARPAT 100:138865
 AB RCH2CH(OR1)CH2OP(O)(R2)OnXR3 [R = alkyl, alkoxy, alkanoylamino; R1 = alkyl, alkanesulfonyl, arenesulfonyl; R2 = O-, alkoxy; R3 = quaternary ammonium; X = (un)substituted alkylene; n = 0,1] were prepared. Thus Me(CH2)15CH(OH)CH2OPh3 was methylated and de tritylated to give Me(CH2)15CH(OMe)CH2OH which was treated with BrCH2CH2OP(O)Cl2 and hydrolyzed to give Me(CH2)10CH(OMe)CH2OP(O)(OH)CH2CH2Br(I). Treatment of I with Me3N gave Me(CH2)15CH(OMe)CH2OP(O)(O-)CH2CH2N+Me3 which had an antitumor activity of 458% against fibrosarcoma Meth A in mice at 3 + 100 mg/mouse i.p.
 IT 88876-07-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 88876-07-7 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)



L3 ANSWER 31 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1983:453484 CAPLUS
 DOCUMENT NUMBER: 99:53484
 ORIGINAL REFERENCE NO.: 99:8345a,8348a
 TITLE: Phospholipid derivatives and their pharmaceutical composition
 INVENTOR(S): Teraji, Tsutomu; Todo, Eishiro; Shimazaki, Norihiko;
 Oku, Teruo; Namiki, Takayuki
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd. , Japan
 SOURCE: Eur. Pat. Appl., 59 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|---|-----------|-----------------|------------|
| EP 70433 | A1 | 19830126 | EP 1982-105875 | 19820701 |
| EP 70433 | B1 | 19851127 | | |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| US 4493832 | A | 19850115 | US 1982-391918 | 19820624 |
| JP 58013592 | A | 19830126 | JP 1982-113353 | 19820630 |
| JP 02059833 | B | 199001213 | | |
| PRIORITY APPLN. INFO.: | | | GB 1981-20612 | A 19810703 |
| OTHER SOURCE(S): | MARPAT | 99:53484 | | |
| AB | Antihypertensive (no data) RCH2CH(OCO2R1)CH2OP(O)(OR2)OnXR3 (R = alkyl, alkoxy, alkylthio, aralkoxy, acylamino; R1 = alkyl, aralkyl; R2 = H, alkyl; R3 = alkylammonium, pyridinium; X = alkylene; n = 0, 1) were prepared Thus, Me(CH2)11OCH2CH(OH)CH2OPh3 was treated with ClCO2Me and detritylated to give Me(CH2)11OCH2CH(OCO2Me)CH2OH which was treated with BrCH2CH2P(O)Cl2 to give Me(CH2)11OCH2CH(OCO2Me)CH2OP(O)(R4)CH2CH2Br (I, R4 = Cl). Hydrolysis of I (R4 = Cl) gave I (R4 = OH) which was treated with Me3N to give Me(CH2)11OCH2CH(OCO2Me)CH2OP(O)(O-)CH2CH2N+Me3. | | | |
| IT 86478-39-9P | | | | |
| RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of) | | | | |
| RN 86478-39-9 CAPLUS | | | | |
| CN 3,5,8,10-Tetraoxa-4-phosphoundecan-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxooctadecyl)amino]methyl-, inner
salt, 4-oxide (CA INDEX NAME) | | | | |



L3 ANSWER 32 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1980:1567622 CAPLUS
 DOCUMENT NUMBER: 93:167622
 ORIGINAL REFERENCE NO.: 93:26683a, 26686a
 TITLE: Phospholipid analogs and their preparation
 INVENTOR(S): Oette, Kurt; Tschung, Tschae Sang
 PATENT ASSIGNEE(S): Nattermann, A., und Cie. G.m.b.H., Fed. Rep. Ger.
 SOURCE: Brit. UK Pat. Appl., 10 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| GB 2020663 | A | 19791121 | GB 1979-16400 | 19790511 |
| GB 2020663 | B | 19821013 | | |
| DE 2820893 | A1 | 19791122 | DE 1978-2820893 | 19780512 |
| DE 2820893 | C2 | 19860220 | | |
| FR 2425442 | A1 | 19791207 | FR 1979-11872 | 19790510 |
| FR 2425442 | B1 | 19821015 | | |
| CA 1117965 | A1 | 19820209 | CA 1979-327377 | 19790510 |
| JP 54148727 | A | 19791121 | JP 1979-57968 | 19790511 |
| ZA 7902284 | A | 19800625 | ZA 1979-2284 | 19790511 |

US 4221732

A 19800909

US 1979-38354

19790511

PRIORITY APPLN. INFO.:

MARPAT 93:167622

DE 1978-2820893

A 19780512

OTHER SOURCE(S):

AB The phospholipid analogs RZCH2CH(Z1R1)CH2OP(O)(O-)O(CH₂)nR2 (R, R1 = H, saturated or unsatd. C2-24 acyl; R2 = NH₂, N+H₃, N+HMe₂, N+HMe₃; Z, Z1 = NH, O; n = 1-3), useful in the preparation of stable liposomes useful as vehicles for pharmaceutical preps., were prepared by known methods. Thus, 1-N-palmityl-2-O-linolyl-1-aminopropane-2,3-diol-3-O-phosphorylcholine was prepared (89%) from the corresponding 3-hydroxy compound by sequential treatment with Cl₂P(O)O(CH₂)₂Br (CHCl₃-pyridine, 1 h, 0°) and Me₃N (PhMe, 10 h, 60°). It shows antilipemic, antiatherosclerotic, and antiprostaglandin activity; they dehydrate tissues or prevent edema formation, inhibit tumor growth, suppress immunity, and retard blood platelet aggregation (no data).

IT 74471-25-3P 74471-27-5P 74471-28-6P
74471-29-7P 74471-30-0P 74487-77-7P
74487-78-8P 74487-79-9P

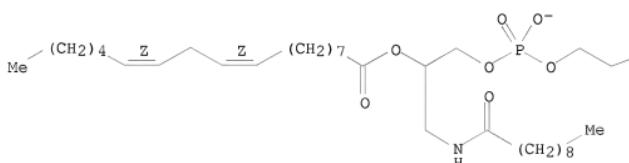
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as liposome)

RN 74471-25-3 CAPLUS

CN 3,5,8-Trioxa-4-phosphahexacosa-17,20-dien-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxodecyl)amino]methyl]-, inner
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

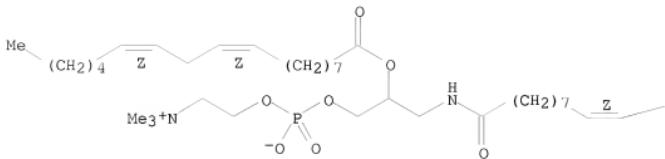
—N⁺Me₃

RN 74471-27-5 CAPLUS

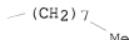
CN 3,5-Dioxa-9-aza-4-phosphahaptacos-18-en-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,
inner salt, 4-oxide, (Z,Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



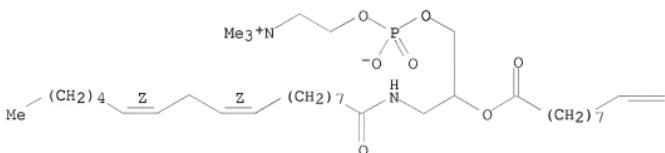
PAGE 1-B



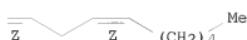
RN 74471-28-6 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphahexacos-18,21-dien-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,
inner salt. 4-oxide. (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

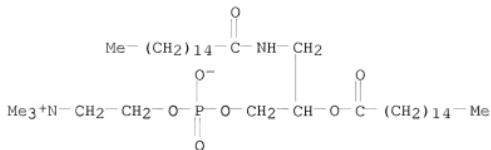
PAGE 1-A



PAGE 1-B



RN 74471-29-7 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphatacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt,
4-oxide (CA INDEX NAME)

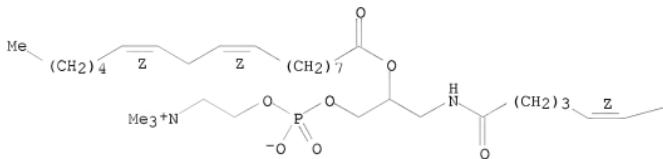


RN 74471-30-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonacosa-14,17,20,23-tetraen-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

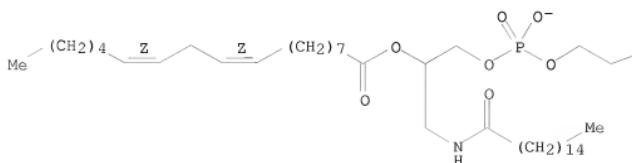


RN 74487-77-7 CAPLUS

CN 3,5,8-Trioxa-4-phosphahexacosa-17,20-dien-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)amino]methyl]-, inner
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

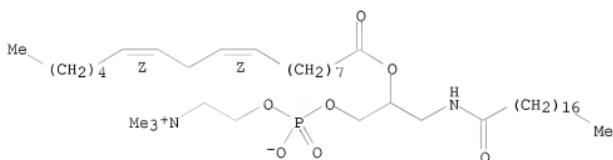
PAGE 1-A



N^+Me_3

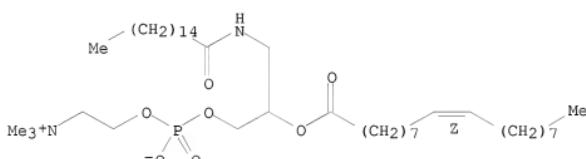
RN 74487-78-8 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-, inner
 salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 74487-79-9 CAPLUS
 CN 3,5,8-Trioxa-4-phosphahexacos-17-en-1-aminium,
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)amino]methyl-, inner
 salt, 4-oxide, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L3 ANSWER 33 OF 50 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN
 DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L3 ANSWER 34 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2008:334491 USPATFULL
 TITLE: Lipid analogs for combating tumors
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED
 STATES (U.S. corporation)
 University of North Carolina, Chapel Hill, NC, UNITED
 STATES (U.S. corporation)

| PATENT INFORMATION: | NUMBER | KIND | DATE |
|---------------------|----------------|------|----------|
| | US 20080293667 | A1 | 20081127 |

APPLICATION INFO.: US 2007-980819 A1 20071031 (11)
RELATED APPLN. INFO.: Division of Ser. No. US 2006-588313, filed on 27 Oct
2006, Pat. No. US 7294621 Division of Ser. No. US
2004-943923, filed on 20 Sep 2004, Pat. No. US 7141557
Continuation of Ser. No. US 1999-412253, filed on 5 Oct
1999, Pat. No. US 6232679 Division of Ser. No. US
1997-793470, filed on 2 May 1997, Pat. No. US 5962437
Continuation of Ser. No. US 1994-314901, filed on 29
Sep 1994, ABANDONED Continuation-in-part of Ser. No. US
1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE
NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 61

EXEMPLARY CLAIM: 1-20

LINE COUNT: 1152

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

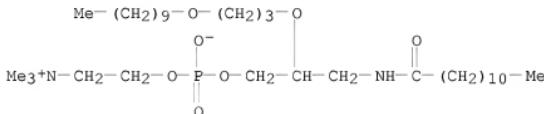
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7
178173-01-8

(phospholipids for treating viral infections and tumors)

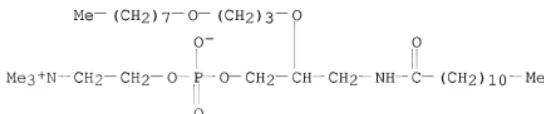
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



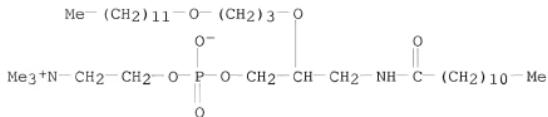
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)

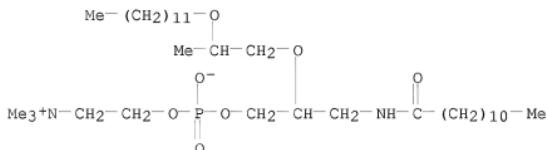


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 35 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2007147810 USPATFULL
 TITLE: Needle-like member, conductive contact, and conductive contact unit
 INVENTOR(S): Kazama, Toshio, Nagano, JAPAN
 Hironaka, Kohei, Nagano, JAPAN
 PATENT ASSIGNEE(S): NHK SPRING CO., LTD., YOKOHAMA-SHI, JAPAN (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|-----------------------|
| PATENT INFORMATION: | US 20070128906 | A1 | 20070607 |
| APPLICATION INFO.: | US 2005-588311 | A1 | 20050204 (10) |
| | WO 2005-JP1712 | | 20050204 |
| | | | 20060803 PCT 371 date |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | JP 2004-28106 | 20040204 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP, 1725 K STREET, NW, SUITE 1000, WASHINGTON, DC, 20006, US | |
| NUMBER OF CLAIMS: | 18 | |
| EXEMPLARY CLAIM: | 1-5 | |
| NUMBER OF DRAWINGS: | 9 Drawing Page(s) | |
| LINE COUNT: | 1013 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A first needle-like member includes a columnar member formed by a conductive material such as a metal material with its up-and-down direction being longitudinal, and a contact member formed on a semiconductor integrated circuit (body to be contacted) side with respect to the columnar member, which are integrally formed. In the columnar member, a through hole is formed in the longitudinal direction

of the first needle-like member. The through hole has opening ends on both sides thereof. Thus, in the process of manufacturing the needle-like member, the contact member is formed on a rod-like body being a raw material from the same direction as a drill insertion direction to form the through hole.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

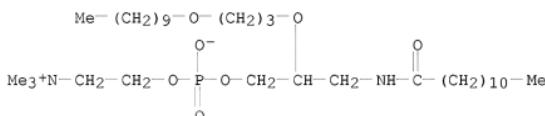
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

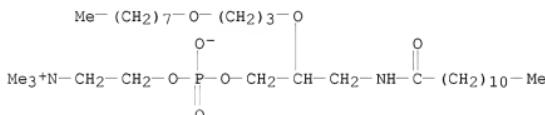
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dectyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



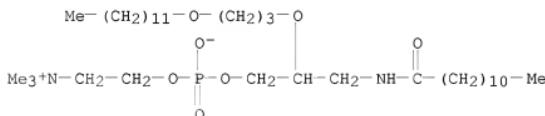
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



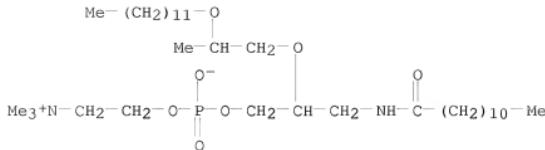
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[(2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 36 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2007:147275 USPATFULL
 TITLE: Coating material, method for manufacturing optical film
 using the coating material, optical film, polarizing
 plate and image display apparatus
 INVENTOR(S): Takada, Katsunori, Osaka, JAPAN
 Yamaoka, Takashi, Osaka, JAPAN
 Yamada, Taku, Osaka, JAPAN
 PATENT ASSIGNEE(S): NITTO DENKO CORPORATION, Ibaraki-shi, JAPAN, 567-8680
 (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|-----------------------|
| PATENT INFORMATION: | US 20070128370 | A1 | 20070607 |
| APPLICATION INFO.: | US 2005-588308 | A1 | 20050202 (10) |
| | WO 2005-JP1510 | | 20050202 |
| | | | 20060803 PCT 371 date |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | JP 2004-30891 | 20040206 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP, 1250
CONNECTICUT AVENUE, NW, SUITE 700, WASHINGTON, DC,
20036, US | |
| NUMBER OF CLAIMS: | 24 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 956 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a coating material for forming a coating layer that can achieve excellent adhesion to a transparent film. The coating material is prepared so that it contains a thermosetting resin, an inorganic filler, and a mixed solvent containing cyclohexanone. The content of the thermosetting resin is in the range from 5 to 20 wt % with respect to the total amount of the thermosetting resin and the inorganic filler, and the content of the cyclohexanone is in the range from 25 to 35 wt % with respect to the entire mixed solvent. By coating a surface of a transparent film with this coating material and then heat-treating the resultant coating, a coating layer with excellent adhesion can be formed on transparent film. The thus-obtained laminate of the transparent film and the coating layer can be used as an antireflection film.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

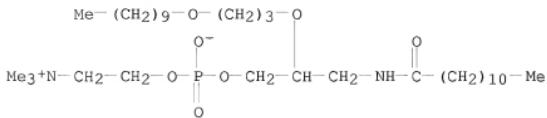
178173-01-8

(phospholipids for treating viral infections and tumors)

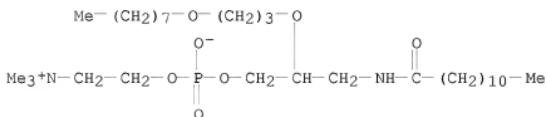
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

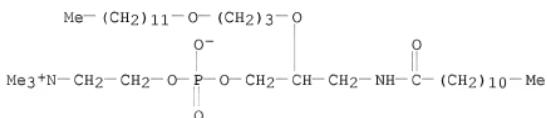
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



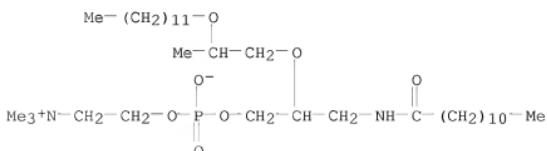
RN 178172-99-1 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxymethylphosphoryl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



TITLE: Lipid analogs for inhibiting HIV-1 activity
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20070105812 | A1 | 20070510 |
| | US 7294620 | B2 | 20071113 |
| APPLICATION INFO.: | US 2006-588311 | A1 | 20061027 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, | | |

DOCUMENT TYPE: ABANDONED
FILE SEGMENT: Utility
LEGAL REPRESENTATIVE: APPLICATION
MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE
NW, WASHINGTON, DC, 20004, US
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1-106
LINE COUNT: 898

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT

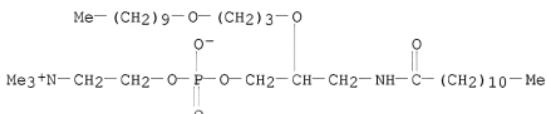
CAS INDEXING IS AVAILABLE FOR THIS PATENT
IT 178172-98-0 178172-99-1 178173-00-1

178173-01-8

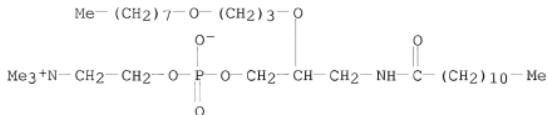
(phospholipids for treating viral infections and tumors)

(phospholipids for
BN 178172-98-0 USPATELLI)

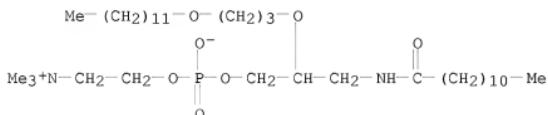
AN 1/8172-98-0 USPAIPLL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



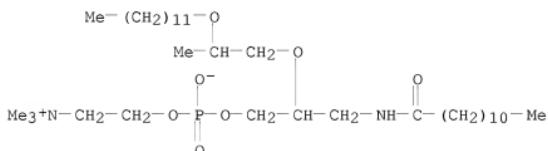
RN 178172-99-1 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 38 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2007121605 USPATFULL
 TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)
 University of North Carolina at Chapel Hill (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|--|--|
| PATENT INFORMATION: | US 20070105811 | A1 | 20070510 |
| APPLICATION INFO.: | US 7294619 | B2 | 20071113 |
| RELATED APPLN. INFO.: | US 2006-588308 | A1 | 20061027 (11) |
| | Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 7135584 | Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 | Division of Ser. No. US 1997-793470, filed |

on 2 May 1997, GRANTED, Pat. No. US 5962437
Continuation of Ser. No. US 1994-314901, filed on 29
Sep 1994, ABANDONED Continuation-in-part of Ser. No. US
1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE
NW, WASHINGTON, DC, 20004, US
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1-106
LINE COUNT: 899
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

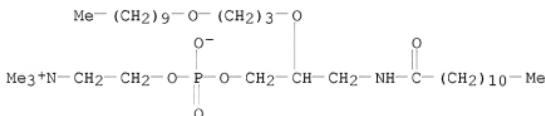
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

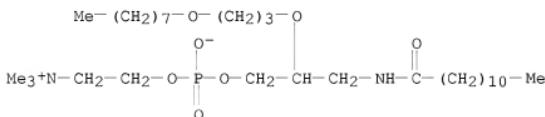
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



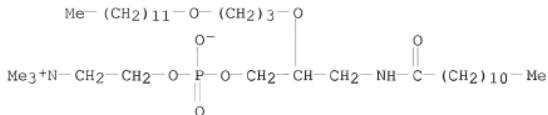
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)

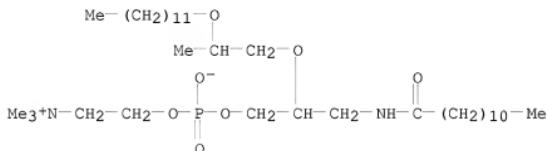


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 39 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2007114796 USPATFULL
 TITLE: Lipid analogs for combating tumors
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20070099870 | A1 | 20070503 |
| | US 7294621 | B2 | 20071113 |
| APPLICATION INFO.: | US 2006-588313 | A1 | 20061027 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US
 NUMBER OF CLAIMS: 19
 EXEMPLARY CLAIM: 1-106
 LINE COUNT: 900
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

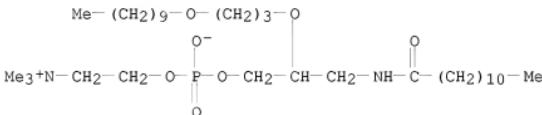
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

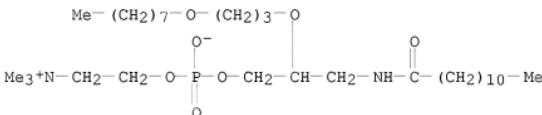
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



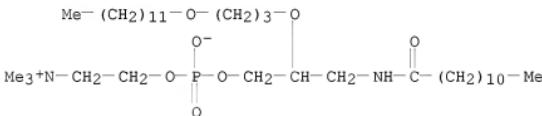
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



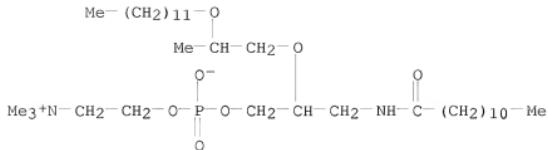
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-
oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N,N-trimethyl-, inner
salt (CA INDEX NAME)

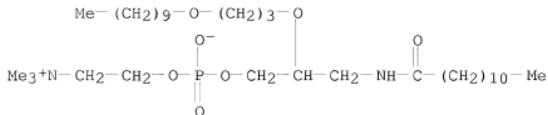


L3 ANSWER 40 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2006:284487 USPATFULL
 TITLE: Lipid analogs for treating viral infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University, Winston Salem, NC, UNITED STATES (U.S. corporation)
 University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

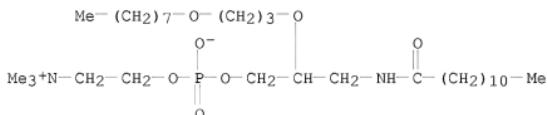
| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 7129227 | B1 | 20061031 |
| APPLICATION INFO.: | US 1999-412539 | | 19991004 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Coleman, Brenda
 LEGAL REPRESENTATIVE: Morgan Lewis & Bockius LLP
 NUMBER OF CLAIMS: 24
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1259
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

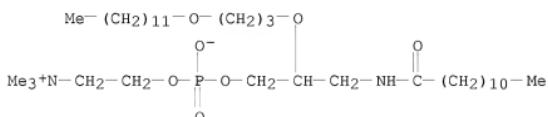
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 IT 178172-98-0 178172-99-1 178173-00-7
 178173-01-8
 (phospholipids for treating viral infections and tumors)
 RN 178172-98-0 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



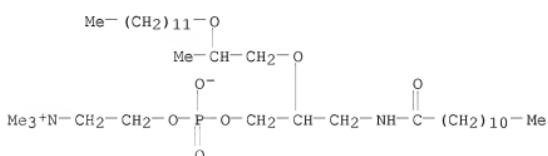
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanolamine, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 41 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2005:215516 USPATFULL
 TITLE: Phospholipids for the treatment of infection by
 togaviruses, herpes viruses and coronaviruses
 INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES

Hes, Jan V., Hurdle Mills, NC, UNITED STATES
 Huang, Yunsheng, Apex, NC, UNITED STATES
 Read, Russ H., Rural Hall, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Furman, Phillip A., Durham, NC, UNITED STATES
 Kucera Pharmaceutical Company (U.S. corporation)

PATENT ASSIGNEE(S):

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20050187192 | A1 | 20050825 |
| APPLICATION INFO.: | US 2004-783927 | A1 | 20040220 (10) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US | | |
| NUMBER OF CLAIMS: | 65 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 2 Drawing Page(s) | | |
| LINE COUNT: | 2757 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

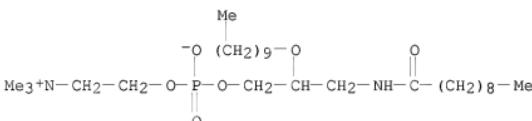
AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5
 (phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

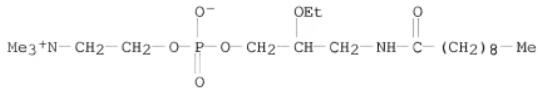
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)

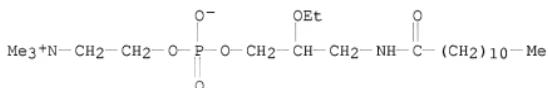


RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 443882-91-5 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



L3 ANSWER 42 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2005:215515 USPATFULL
 TITLE: Methods and compositions for the treatment of respiratory syncytial virus
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 Fleming, Ronald A., Cary, NC, UNITED STATES
 Hess, Jan V., Hurdle Mills, NC, UNITED STATES
 Huang, Yunsheng, Apex, NC, UNITED STATES
 Read, Russ H., Rural Hall, NC, UNITED STATES
 Furman, Phillip A., Durham, NC, UNITED STATES

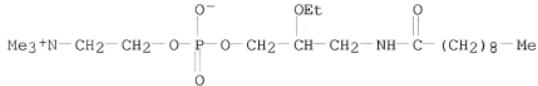
| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 20050187191 | A1 | 20050825 |
| APPLICATION INFO.: | US 2004-781894 | A1 | 20040220 (10) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US | | |
| NUMBER OF CLAIMS: | 39 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 1 Drawing Page(s) | | |
| LINE COUNT: | 2105 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

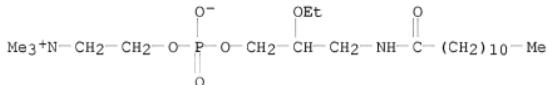
AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

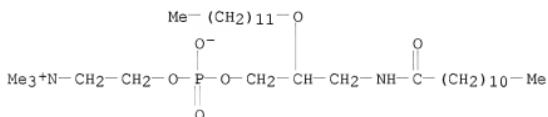
IT 443882-90-4, KPC 11 443882-91-5, KPC 15
 (comps. for treatment of respiratory syncytial virus)
 RN 443882-90-4 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



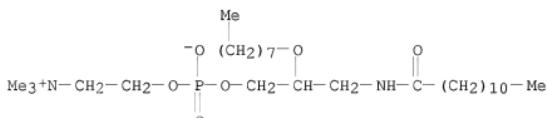
RN 443882-91-5 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



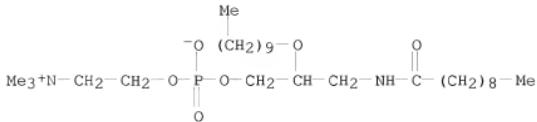
IT 207298-91-7 207298-93-9 252371-27-0
 443882-96-0
 (compns. for treatment of respiratory syncytial virus)
 RN 207298-91-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)



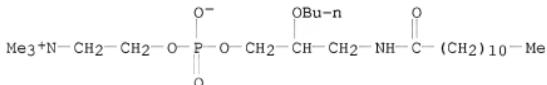
RN 207298-93-9 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)



RN 252371-27-0 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



L3 ANSWER 43 OF 50 USPATFULL on STN
ACCESSION NUMBER: 2005:93372 USPATFULL
TITLE: Lipid analogs for treating viral infections
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
Wake Forest University, Winston-Salem, NC, UNITED
STATES (U.S. corporation)
University of North Carolina at Chapel Hill, Chapel
Hill, NC, UNITED STATES (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|---------------|
| PATENT INFORMATION: | US 20050080050 | A1 | 20050414 |
| | US '7141557 | B2 | 20061128 |
| APPLICATION INFO.: | US 2004-943923 | A1 | 20040920 (10) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7

DOCUMENT TYPE: Aug 1995
FILE SEGMENT: Utility
LEGAL REPRESENTATIVE: APPLICATION
MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NUMBER OF CLAIMS: 34

EXEMPLARY CLAIM: 1-106

LINE COUNT: 960

CLARK COUNTY, 388
CNS INDEXING IS AVAILABLE FOR THIS PATENT

CAS INDEXING IS AVAILABLE

AB A method of treating viral hepatitis.

hepatitis B virus, and

administering to a s

infection-controlling amount of a p-

derivative.

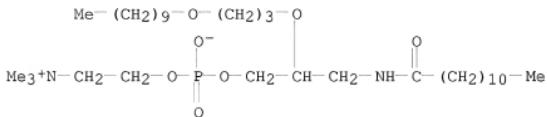
CAS INDEXING IS AVAILABLE FOR THIS PATENT

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

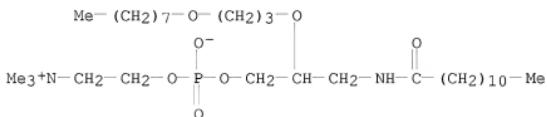
11 178172-98-0 178172-99-1 178173-00-1

178173-01-8

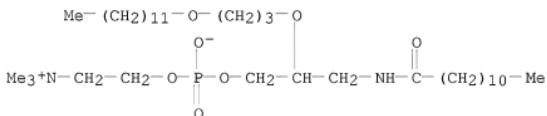
(phospholipids for treating viral infections and tumors)
RN 178172-98-0 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



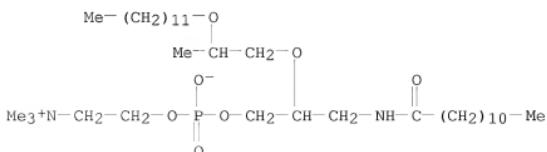
RN 178172-99-1 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)

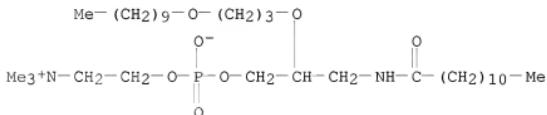


L3 ANSWER 44 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 2004:328020 USPATFULL
 TITLE: Lipid analogs for treating viral infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S.
 corporation)
 University of North Carolina at Chapel Hill, Chapel
 Hill, NC (U.S. corporation)

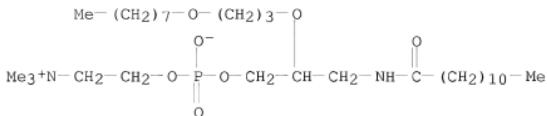
| | NUMBER | KIND | DATE |
|--|--|------|---------------|
| PATENT INFORMATION: | US 20040259845 | A1 | 20041223 |
| | US 7135584 | B2 | 20061114 |
| APPLICATION INFO.: | US 2004-889127 | A1 | 20040713 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1999-412539, filed on 4 Oct
1999, ABANDONED Division of Ser. No. US 1997-793470,
filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371
of International Ser. No. WO 1995-US10111, filed on 7
Aug 1995, PENDING | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE
NW, WASHINGTON, DC, 20004 | | |
| NUMBER OF CLAIMS: | 19 | | |
| EXEMPLARY CLAIM: | CLM-1-106 | | |
| LINE COUNT: | 903 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative. | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

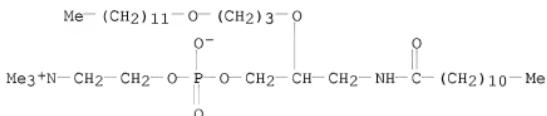
IT 178172-98-0 178172-99-1 178173-00-7
 178173-01-8
 (phospholipids for treating viral infections and tumors)
 RN 178172-98-0 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



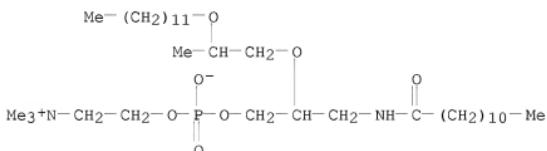
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxymethylphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



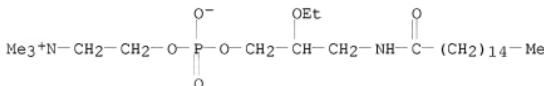
L3 ANSWER 45 OF 50 USPATFULL on STN
ACCESSION NUMBER: 2000:24634 USPATFULL
TITLE: Method of treating hepatitis virus infections
INVENTOR(S): Morris-Natschke, Susan L., Apex, NC, United States
Kucera, Louis S., Pfafftown, NC, United States
PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)
University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 6030960 | | 20000229 |
| APPLICATION INFO.: | US 1998-102308 | | 19980622 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |

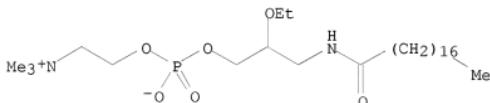
PRIMARY EXAMINER: Wilson, James O.
 LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.
 NUMBER OF CLAIMS: 44
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
 LINE COUNT: 1631
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of treating hepatitis virus infection is disclosed. The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P
 (preparation of phospholipids for combating hepatitis B virus)
 RN 112989-01-2 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)



RN 112989-02-3 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)



L3 ANSWER 46 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 1999121339 USPATFULL
 TITLE: Lipid analogs for treating viral infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States
 Morris-Natschke, Susan L., Apex, NC, United States
 Ishaq, Khalid S., Chapel Hill, NC, United States
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------------------|
| PATENT INFORMATION: | US 5962437 | | 19991005 |
| | WO 9606620 | | 19960307 |
| APPLICATION INFO.: | US 1997-793470 | | 19970502 (8) |
| | WO 1995-US10111 | | 19950807 |
| | | | 19970502 PCT 371 date |
| | | | 19970502 PCT 102(e) date |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part | | |

of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
ASSISTANT EXAMINER: Coleman, Brenda
LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.
NUMBER OF CLAIMS: 33
EXEMPLARY CLAIM: 1
LINE COUNT: 1159

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

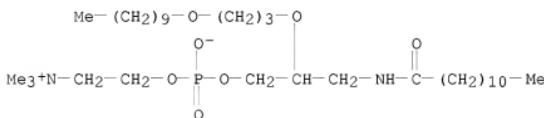
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7
178173-01-8

(phospholipids for treating viral infections and tumors)

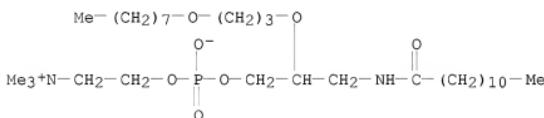
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



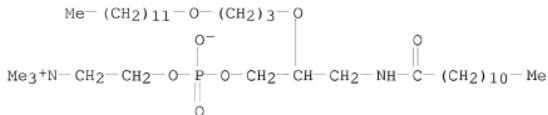
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)

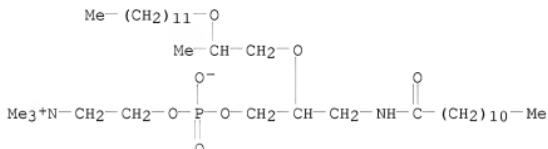


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



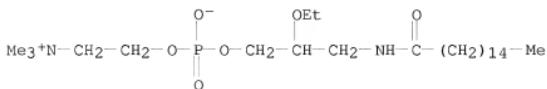
L3 ANSWER 47 OF 50 USPATFULL on STN
 ACCESSION NUMBER: 1998:72609 USPATFULL
 TITLE: Method of treating hepatitis virus infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States
 Morris-Natschke, Susan L., Apex, NC, United States
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)
 University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 5770584 | | 19980623 |
| APPLICATION INFO.: | US 1995-465947 | | 19950606 (8) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned | | |

| | |
|--|---|
| DOCUMENT TYPE: | Utility |
| FILE SEGMENT: | Granted |
| PRIMARY EXAMINER: | Wilson, James O. |
| LEGAL REPRESENTATIVE: | Schwegman, Lundberg, Woessner & Kluth, P.A. |
| NUMBER OF CLAIMS: | 14 |
| EXEMPLARY CLAIM: | 1 |
| NUMBER OF DRAWINGS: | 1 Drawing Figure(s); 1 Drawing Page(s) |
| LINE COUNT: | 1527 |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | |
| AB | A method of treating hepatitis virus infection is disclosed. The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative. |

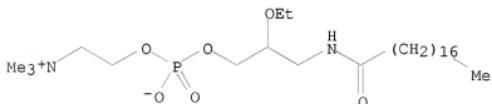
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 IT 112989-01-2P 112989-02-3P 209532-02-5P
 209532-03-6P
 (alkyl lipids for treating hepatitis virus infections)
 RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
INDEX NAME)



RN 112989-02-3 USPATFULL

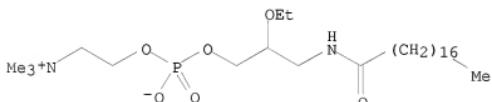
CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
INDEX NAME)



RN 209532-02-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CI) (CA INDEX NAME)

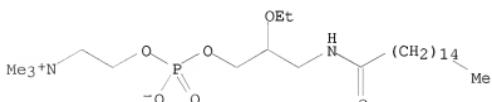
Rotation (+).



RN 209532-03-6 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CI) (CA INDEX NAME)

Rotation (+).



L3 ANSWER 48 OF 50 USPATFULL on STN

ACCESSION NUMBER: 85:76852 USPATFULL

TITLE: Phospholipid derivatives, and pharmaceutical
composition of the same

INVENTOR(S): Teraji, Tsutomu, Osaka, Japan

Todo, Eishiro, Toyonaka, Japan
 Shimazaki, Norihiko, Toyonaka, Japan
 Oku, Teruo, Osaka, Japan
 Namiki, Takayuki, Minoo, Japan
 Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan
 (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 4562179 | | 19851231 |
| APPLICATION INFO.: | US 1983-482447 | | 19830406 (6) |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | GB 1982-11284 | 19820419 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Sutto, Anton H. | |
| LEGAL REPRESENTATIVE: | Oblon, Fisher, Spivak, McClelland & Maier | |
| NUMBER OF CLAIMS: | 8 | |
| EXEMPLARY CLAIM: | 1,2 | |
| LINE COUNT: | 542 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New phospholipid derivatives represented by the formula: ##STR1##
 wherein R.¹ is alkyl, alkoxy or alkanoylamino;

R.² is lower alkyl, lower alkanesulfonyl or arenesulfonyl;

R.³, R.⁴ and R.⁵ are each lower alkyl;

n is 0 or 1

A is lower alkylene optionally interrupted by a --NHCO-- group; and

Q is oxido or lower alkoxy;

provided that n is 0 or A is lower alkylene interrupted by a --NHCO-- group, or Q is lower alkoxy, when R.¹ is alkoxy and R.² is lower alkyl; and pharmaceutically acceptable salts thereof, which exhibit antitumor activity.

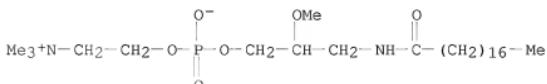
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 88876-07-7P

(preparation of)

RN 88876-07-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)



L3 ANSWER 49 OF 50 USPATFULL on STN

ACCESSION NUMBER: 85:3300 USPATFULL

TITLE: Certain glycerol-phosphoryl choline derivatives,
 compositions containing same and method of using same

INVENTOR(S) :

Teraji, Tsutomu, Osaka, Japan
 Todo, Eishiro, Toyonaka, Japan
 Shimazaki, Norihiko, Saitama, Japan
 Oku, Teruo, Osaka, Japan
 Namiki, Takayuki, Minoo, Japan
 Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan
 (non-U.S. corporation)

PATENT ASSIGNEE(S) :

| NUMBER | KIND | DATE |
|--------|------|------|
|--------|------|------|

PATENT INFORMATION:

US 4493832 19850115

APPLICATION INFO.:

US 1982-391918 19820624 (6)

| NUMBER | DATE |
|--------|------|
|--------|------|

PRIORITY INFORMATION:

GB 1981-20612 19810703

DOCUMENT TYPE:

FILE SEGMENT:

PRIMARY EXAMINER:

LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New phospholipid derivatives represented by the formula: ##STR1##
 wherein R.sup.1 is alkyl, alkoxy, alkylthio, ar(lower)alkoxy or
 alkanoylamino; R.sup.2 is lower alkyl or ar(lower)alkyl; n is an integer
 of 0 or 1; A is lower alkylene; R.sup.3 is pyridinio or a group of the
 formula: ##STR2## in which R.sup.5, R.sup.6 and R.sup.7 are each
 hydrogen or lower alkyl; and R.sup.4 is hydrogen or lower alkyl; and
 pharmaceutically acceptable salt thereof, which exhibit
 anti-hypertensive activity.

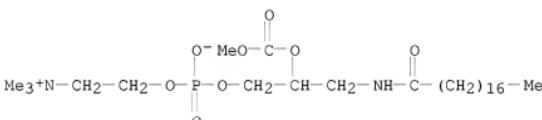
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 86478-39-9P

(preparation of)

RN 86478-39-9 USPATFULL

CN 3,5,8,10-Tetraoxa-4-phosphaundecan-1-aminium,
 4-hydroxy-N,N-trimethyl-9-oxo-7-[(1-oxooctadecyl)amino]methyl]-,
 inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 50 OF 50 USPATFULL on STN

ACCESSION NUMBER: 80:44225 USPATFULL

TITLE: Structural analogs of natural phospholipids

INVENTOR(S): Oette, Kurt, Cologne, Germany, Federal Republic of
 Tschung, Tschae S., Rodenkirchen, Germany, Federal
 Republic of

PATENT ASSIGNEE(S): A. Nattermann & Cie. GmbH, Germany, Federal Republic of
 (non-U.S. corporation)

| NUMBER | KIND | DATE |
|--------|------|------|
|--------|------|------|

PATENT INFORMATION: US 4221732 19800909
APPLICATION INFO.: US 1979-38354 19790511 (6)

NUMBER DATE

PRIORITY INFORMATION: DE 1978-2820893 19780512
DOCUMENT TYPE: Utility Granted
FILE SEGMENT:
PRIMARY EXAMINER: Niebling, John F.
LEGAL REPRESENTATIVE: Flocks, Karl W.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 412

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Structural analogs of natural phospholipids of the general formulae #STR1## where R_{sub.1} and R_{sub.2} represent either hydrogen and/or saturated or unsaturated straight-chain and branched acyl radicals with 2 to 24 C-atoms and R_{sub.3} an amino group or a substituted amino group of the formula ##STR2## and n is a number from 1-3, are useful in the preparation of stable liposomes useful as vehicles for pharmaceutical preparations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

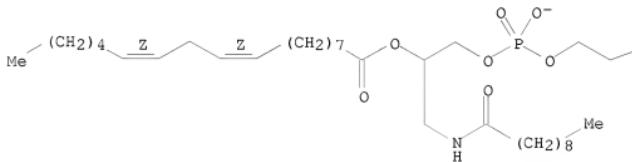
IT 74471-25-3P 74471-27-5P 74471-28-6P
74471-29-7P 74471-30-0P 74487-77-7P
74487-78-8P 74487-79-9P
(preparation of, as liposome)

RN 74471-25-3 USPATFULL

CN 3,5,8-Trioxa-4-phosphahexacosa-17,20-dien-1-aminium,
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxodecyl)amino]methyl-, inner
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



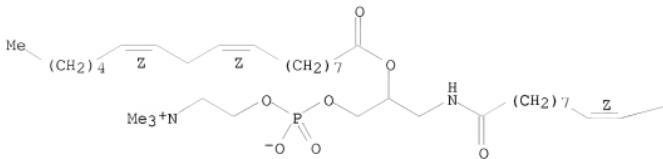
PAGE 1-B

N^+Me_3

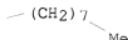
RN 74471-27-5 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphahexacos-18-en-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxygen]-,
inner salt, 4-oxide, (Z,Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



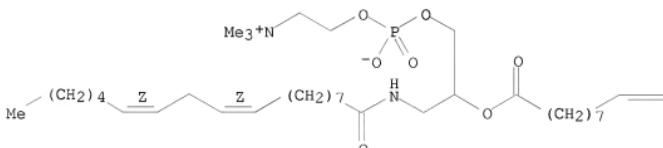
PAGE 1-B



RN 74471-28-6 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphahaptacosa-18,21-dien-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[1-oxo-9,12-octadecadienyl]oxy]-,
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

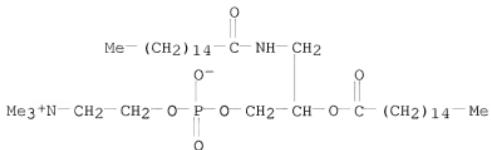
PAGE 1-A



PAGE 1-B



RN 74471-29-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[1-oxohexadecyl]oxy]-, inner salt,
4-oxide (CA INDEX NAME)

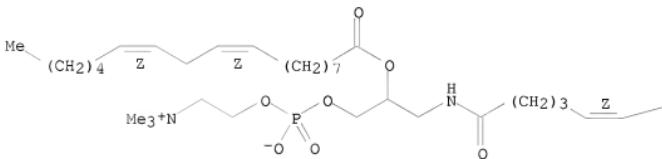


BN 74471-30-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphonacosa-14,17,20,23-tetraen-1-aminium,
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

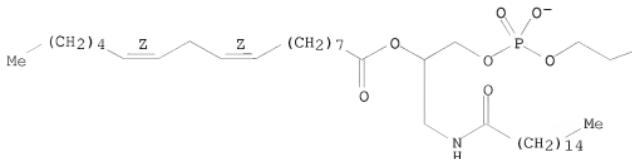


BN 74487-77-7 USPATELL

CN 7-oxo-7-[[1-(1-oxohexadecyl)amino]methyl]-, 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[(Z,Z)-4-oxide, inner salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

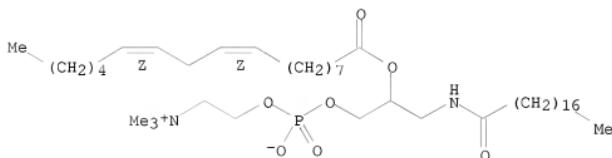
PAGE 1-A



-N+Me3

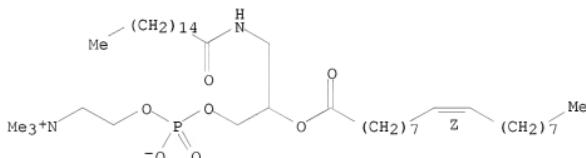
RN 74487-78-8 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,
 inner salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 74487-79-9 USPATFULL
 CN 3,5,8-Trioxa-4-phosphahexacos-17-en-1-aminium,
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)amino]methyl-,
 inner salt, 4-oxide, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



=> d his

(FILE 'HOME' ENTERED AT 11:38:48 ON 21 JAN 2009)

FILE 'REGISTRY' ENTERED AT 11:39:05 ON 21 JAN 2009
 L1 STRUCTURE uploaded
 L2 68 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:39:33 ON 21 JAN
 2009

L3 50 S L2

=> s 13 and (viral or antiviral or virus or RSV)
 L4 24 L3 AND (VIRAL OR ANTIVIRAL OR VIRUS OR RSV)

=> d 14 1-24 ibib, abs, hitstr

L4 ANSWER 1 OF 24 MEDLINE on STN
ACCESSION NUMBER: 1991202492 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2016713
TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.
AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C
CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.
CONTRACT NUMBER: CA 12197 (United States NCI)
CA 42216 (United States NCI)
RR 05404 (United States NCRR)
SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.
Journal code: 9716531. ISSN: 0022-2623.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 7 Jun 1991
Last Updated on STN: 3 Feb 1997
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L4 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:198407 CAPLUS
DOCUMENT NUMBER: 144:403777
TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene
AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco;
Stockwell, Brent R.
CORPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA
SOURCE: Cancer Cell (2006), 9(2), 133-146
CODEN: CCAECI; ISSN: 1535-6108
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate

doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analog of 1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II α , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex as a candidate indoxin target.

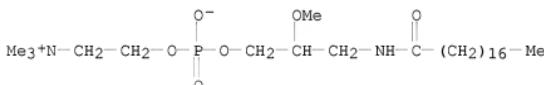
IT 88876-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(small mols. which overcome drug resistance induced by a viral oncogene)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng; Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

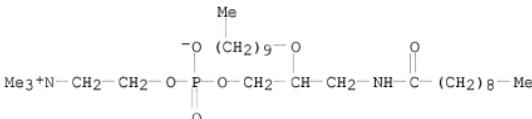
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 20050187192 | A1 | 20050825 | US 2004-783927 | 20040220 |
| PRIORITY APPLN. INFO.: | | | US 2004-783927 | 20040220 |

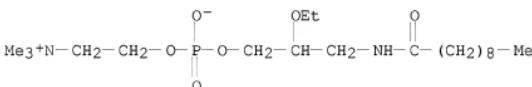
OTHER SOURCE(S): MARPAT 143:222464

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella

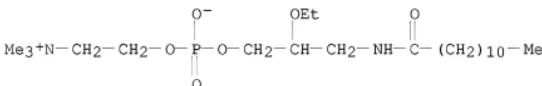
zoster virus was 0.48 µg/mL.
 IT 252371-27-0 443882-90-4 443882-91-5
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (phospholipids for treatment of infection by togaviruses, herpes
 viruses and coronaviruses)
 RN 252371-27-0 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 443882-90-4 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
 INDEX NAME)



RN 443882-91-5 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
 INDEX NAME)



L4 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:902611 CAPLUS
 DOCUMENT NUMBER: 143:241938
 TITLE: Methods and compositions for the treatment of
 respiratory syncytial virus
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,
 Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,
 Yunsheng; Read, Russ H.; Furman, Phillip A.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| US 20050187191 | A1 | 20050825 | US 2004-781894 | 20040220 |
| WO 2005099719 | A2 | 20051027 | WO 2005-US3972 | 20050209 |
| WO 2005099719 | A3 | 20070322 | | |
| W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG | | | | |

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

OTHER SOURCE(S): MARPAT 143:241938

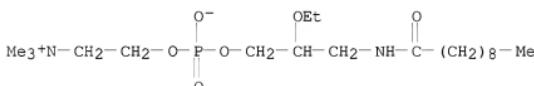
AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

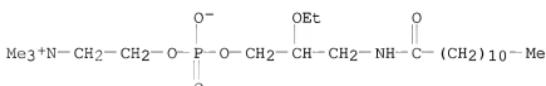
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



IT 207298-91-7 207298-93-9 252371-27-0

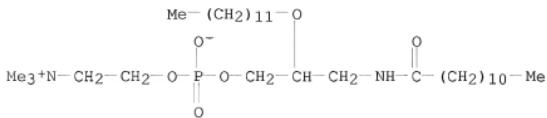
443882-96-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for treatment of respiratory syncytial virus)

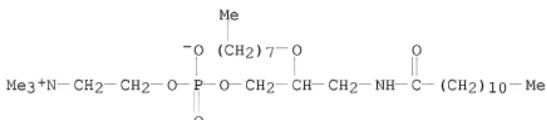
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

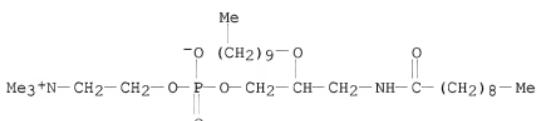
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



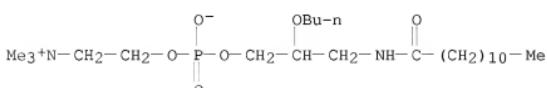
RN 207298-93-9 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 252371-27-0 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 443882-96-0 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)

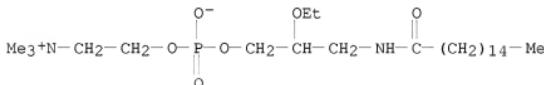


L4 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:435743 CAPLUS
DOCUMENT NUMBER: 129:90448
ORIGINAL REFERENCE NO.: 129:18491a,18494a
TITLE: Method of treating hepatitis virus

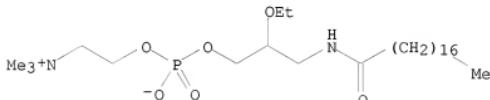
INVENTOR(S): infections
Kucera, Louis S.; Morris-Natschke, Susan L.
PATENT ASSIGNEE(S): Wake Forest University, USA; University of North
Carolina
SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 5770584 | A | 19980623 | US 1995-465947 | 19950606 |
| US 6030960 | A | 20000229 | US 1998-102308 | 19980622 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | US 1993-74943 | B2 19930610 |
| | | | US 1995-465947 | A3 19950606 |

OTHER SOURCE(S): MARPAT 129:90448
AB A method of treating hepatitis virus infection is disclosed.
The method involves administering to a human subject in need of such
treatment an effective hepatitis virus-combating amount of an
alkyl lipid or alkyl lipid derivative
IT 112989-01-2P 112989-02-3P 209532-02-5P
209532-03-6P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(alkyl lipids for treating hepatitis virus infections)
RN 112989-01-2 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)

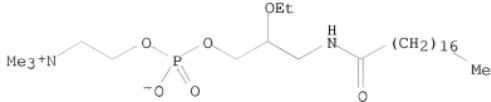


RN 112989-02-3 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



RN 209532-02-5 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CT) (CA INDEX NAME)

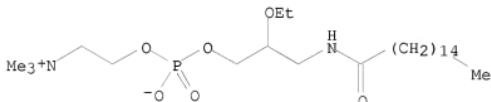
Rotation (\pm)



RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a

TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

PUBLISHER: CODEN: ACCHEH; ISSN: 0956-3202

DOCUMENT TYPE: International Medical Press

LANGUAGE: Journal

English

AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant

HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

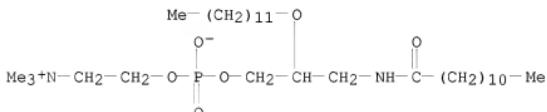
IT 207298-91-7P 207298-92-8P 207298-93-9P
 207298-94-0P 207298-95-1P 207298-97-3P
 207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

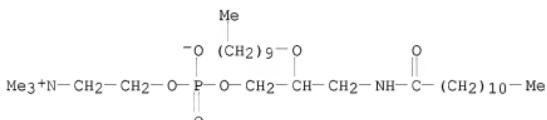
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
 (9CI) (CA INDEX NAME)



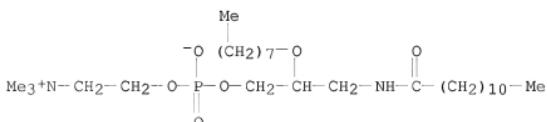
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 207298-93-9 CAPLUS

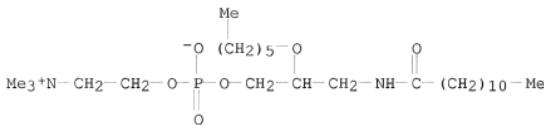
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



RN 207298-94-0 CAPLUS

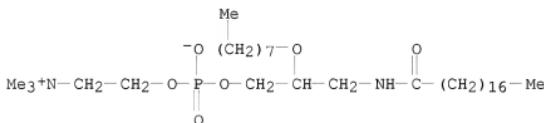
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)

(CA INDEX NAME)



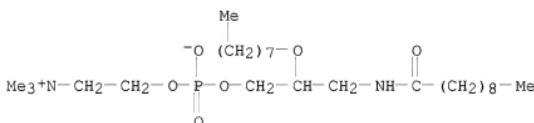
RN 207298-95-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



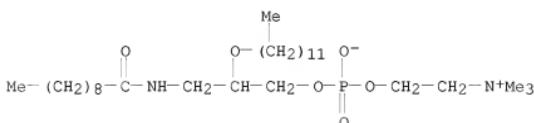
RN 207298-97-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 207298-99-5 CAPLUS

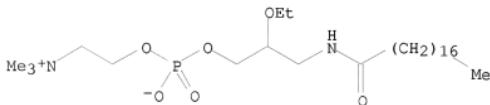
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS
 CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
 NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1996:388263 CAPLUS
 DOCUMENT NUMBER: 125:492/3
 ORIGINAL REFERENCE NO.: 125:9233a,9236a
 TITLE: Lipid analogs for treating viral infections
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.
 PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina at Chapel Hill
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9606620 | A2 | 19960307 | WO 1995-US10111 | 19950807 |
| WO 9606620 | A3 | 19960613 | | |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT | | | | |
| RW: KE, MM, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2197319 | A1 | 19960307 | CA 1995-2197319 | 19950807 |
| AU 9532166 | A | 19960322 | AU 1995-32166 | 19950807 |
| EP 781138 | A2 | 19970702 | EP 1995-928365 | 19950807 |
| EP 781138 | B1 | 20080521 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| JP 10506619 | T | 19980630 | JP 1995-508773 | 19950807 |
| EP 1852121 | A2 | 20071107 | EP 2007-16369 | 19950807 |
| EP 1852121 | A3 | 20071121 | | |
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| AT 395922 | T | 20080615 | AT 1995-928365 | 19950807 |
| US 5962437 | A | 19991005 | US 1997-793470 | 19970502 |
| US 7129227 | B1 | 20061031 | US 1999-412539 | 19991004 |
| US 20040259845 | A1 | 20041223 | US 2004-889127 | 20040713 |
| US 7135584 | B2 | 20061114 | | |
| US 20050080050 | A1 | 20050414 | US 2004-943923 | 20040920 |
| US 7141557 | B2 | 20061128 | | |
| JP 2007056033 | A | 20070308 | JP 2006-278049 | 20061011 |
| US 20070099870 | A1 | 20070503 | US 2006-588313 | 20061027 |

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|------------------------|----|----------|------------------|-------------|
| US 7294621 | B2 | 20071113 | | |
| US 20070105811 | A1 | 20070510 | US 2006-588308 | 20061027 |
| US 7294619 | B2 | 20071113 | | |
| US 20070105812 | A1 | 20070510 | US 2006-588311 | 20061027 |
| US 7294620 | B2 | 20071113 | | |
| US 20080293667 | A1 | 20081127 | US 2007-980819 | 20071031 |
| PRIORITY APPLN. INFO.: | | | US 1994-297416 | A 19940829 |
| | | | US 1994-314901 | A 19940929 |
| | | | EP 1995-928365 | A3 19950807 |
| | | | JP 1996-508773 | A3 19950807 |
| | | | WO 1995-US101111 | W 19950807 |
| | | | US 1997-793470 | A3 19970502 |
| | | | US 1999-412539 | B1 19991004 |
| | | | US 1999-412253 | A1 19991005 |
| | | | US 2004-889127 | A3 20040713 |
| | | | US 2004-943923 | A3 20040920 |
| | | | US 2006-588313 | A3 20061027 |

OTHER SOURCE(S): MARPAT 125:49273

AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decylpropyl-3-phosphocholine showed IC₅₀ value of 0.14 μM against HIV-1 syncytial plaque formation.

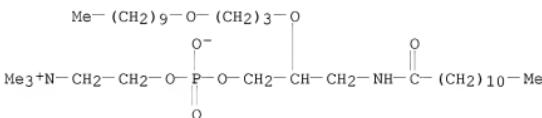
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

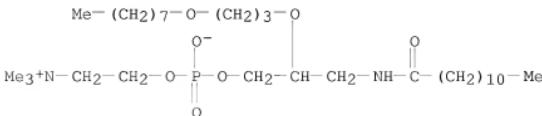
(phospholipids f

RN 178172-98-0 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI). (CA INDEX NAME)



RN 178172-99-1 CAPLUS

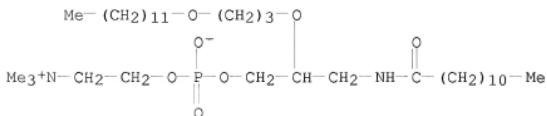
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 CAPLUS

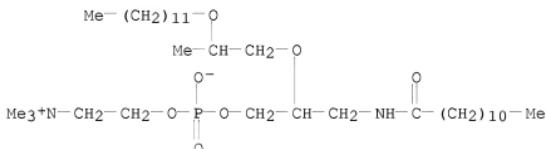
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 CAPLUS

CN Ethanaminium, 2-[(2-[3-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy)hydroxyporphosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:701769 CAPLUS

DOCUMENT NUMBER: 123:112632

ORIGINAL REFERENCE NO.: 123:20141a,20144a

TITLE: Phospholipids for combating hepatitis B virus infection

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

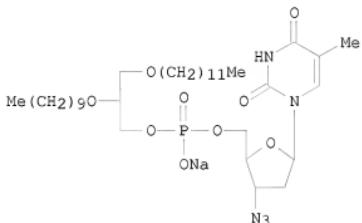
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 9428908 | A2 | 19941222 | WO 1994-US5855 | 19940525 |
| WO 9428908 | A3 | 19950323 | | |
| W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, LZ, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BE, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2164717 | A1 | 19941222 | CA 1994-2164717 | 19940525 |
| AU 9470448 | A | 19950103 | AU 1994-70448 | 19940525 |
| EP 702556 | A1 | 19960327 | EP 1994-919231 | 19940525 |
| EP 702556 | B1 | 20021023 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| AT 226437 | T | 20021115 | AT 1994-919231 | 19940525 |
| PRIORITY APPLN. INFO.: | | | US 1993-74943 | A 19930610 |



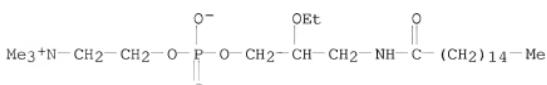
AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH₂XCH₂YR₁ [Y = S, O, NH, NMe, NHCO, NMeCO; R₁ = (un)branched (un)saturated C₁₀-20 alk(en/yn)yl; X = bond, CH₂ (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO₄)_n, N+R₅R₆F⁻; Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R₅, R₆ = H, alkyl; W = OH, SH; Z- = anion]. Several compds. were prepared. For example, etherification of isopropylidenediglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et₂O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph₃CCl in pyridine, 2-O-alkylation by 1-bromodecane and NaH in THF (51%), and detritylation by p-MeC₆H₄SO₃H in CHCl₃-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)₂P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, (±)-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddc.

IT 112989-01-2P 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of phospholipids for combating hepatitis B virus)

RN 112989-01-2 CAPLUS

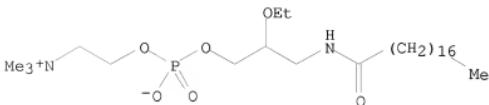
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L4 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:694404 CAPLUS

DOCUMENT NUMBER: 123:160151

ORIGINAL REFERENCE NO.: 123:28207a,28210a

TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody

AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri; Iyer, Nathan; Neufeld, Jay; Kute, Timothy; Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Wake Forest University, Winston-Salem, NC, 27157-1064, USA

SOURCE: AIDS Research and Human Retroviruses (1995), 11(6), 705-12

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER: Liebert

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

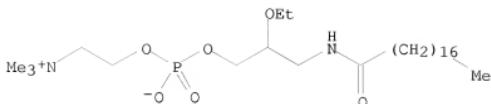
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L4 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:185901 CAPLUS

DOCUMENT NUMBER: 114:185901

ORIGINAL REFERENCE NO.: 114:31415a,31418a

TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity

AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera, Louis S.; Iyer, Nathan; et al.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14

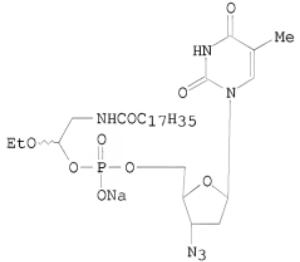
DOCUMENT TYPE: CODEN: JMCMAR; ISSN: 0022-2623

LANGUAGE: Journal

OTHER SOURCE(S): English

CASREACT 114:185901

GI



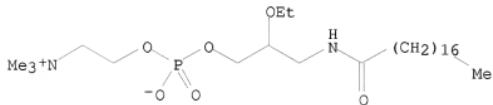
I

AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(0)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

IT 112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)
RN 112989-02-3 CAPLUS
CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



L4 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:185881 CAPLUS

DOCUMENT NUMBER: 114:185881

ORIGINAL REFERENCE NO.: 114:31411a,31414a

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents

AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83

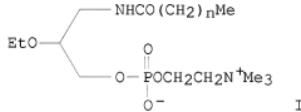
DOCUMENT TYPE: CODEN: JMCMAR; ISSN: 0022-2623

LANGUAGE: Journal

OTHER SOURCE(S): English

CASREACT 114:185881

GI



I

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC₅₀ for the inhibition of plaque formation of 0.16 μM which was 84-fold lower than the IC₅₀ value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

IT 88876-07-7 112989-00-1 112989-01-2

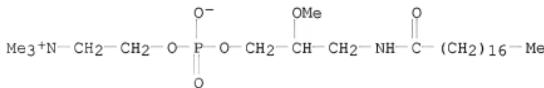
112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)

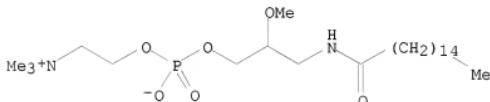
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
INDEX NAME)



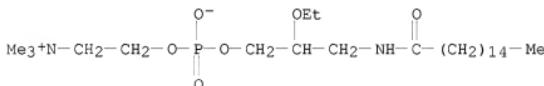
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



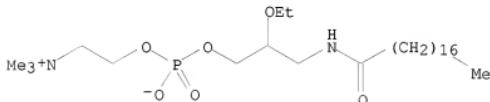
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)

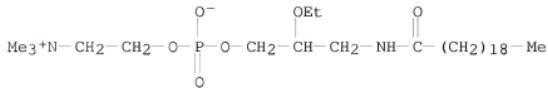


IT 149576-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and anti-HIV-1 activity of)

RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA
INDEX NAME)



L4 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

ORIGINAL REFERENCE NO.: 113:11741a,11744a

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

CODEN: ARHRE7; ISSN: 0889-2229

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4 μM) with alkoxy, alkylthio, or alkylamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63 μM) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

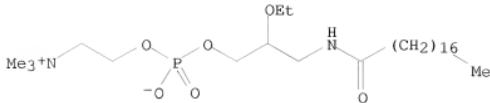
IT 112989-02-3

RL: BIOL (Biological study)

(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX
NAME)



L4 ANSWER 13 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 2008:334491 USPATFULL
 TITLE: Lipid analogs for combating tumors
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)
 University of North Carolina, Chapel Hill, NC, UNITED STATES (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20080293667 | A1 | 20081127 |
| APPLICATION INFO.: | US 2007-980819 | A1 | 20071031 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2006-588313, filed on 27 Oct 2006, Pat. No. US 7294621 Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412253, filed on 5 Oct 1999, Pat. No. US 6232679 Division of Ser. No. US 1997-793470, filed on 2 May 1997, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |

DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 61
 EXEMPLARY CLAIM: 1-20

LINE COUNT: 1152

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

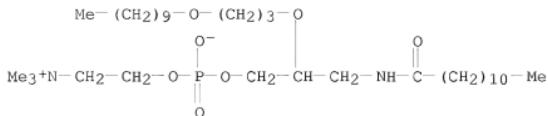
AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

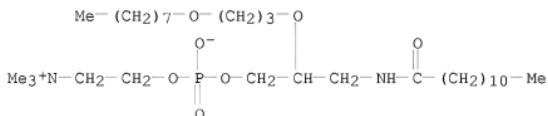
IT 178172-98-0 178172-99-1 178173-00-7
 178173-01-8
 (phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

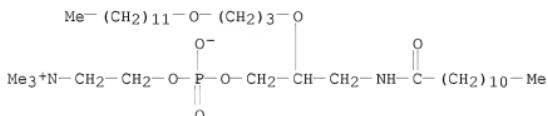
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



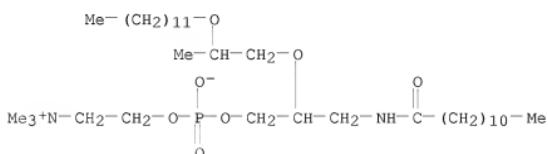
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanolamine, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxypyrophosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 14 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 2007:121606 USPATFULL
 TITLE: Lipid analogs for inhibiting HIV-1 activity
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES

PATENT ASSIGNEE(S): Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
Wake Forest University (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20070105812 | A1 | 20070510 |
| | US 7294620 | B2 | 20071113 |
| APPLICATION INFO.: | US 2006-588311 | A1 | 20061027 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 18

EXEMPLARY CLAIM: 1-106

LINE COUNT: 898

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

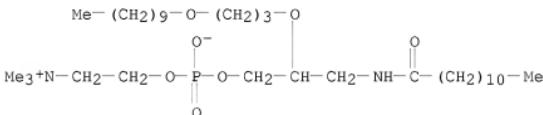
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

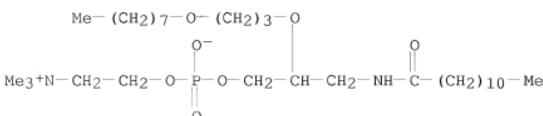
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)

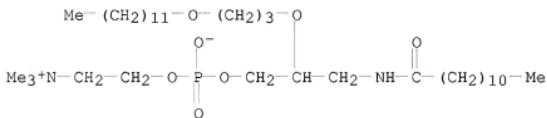


RN 178172-99-1 USPATFULL

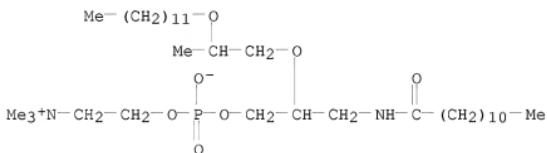
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 15 OF 24 USPATFULL on STN
ACCESSION NUMBER: 2007121605 USPATFULL
TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)
University of North Carolina at Chapel Hill (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 20070105811 | A1 | 20070510 |
| | US 7294619 | B2 | 20071113 |
| APPLICATION INFO.: | US 2006-588308 | A1 | 20061027 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 7135584 Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US | | |
| NUMBER OF CLAIMS: | 20 | | |

EXEMPLARY CLAIM: 1-106
LINE COUNT: 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

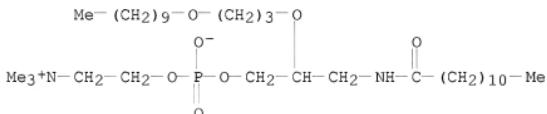
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

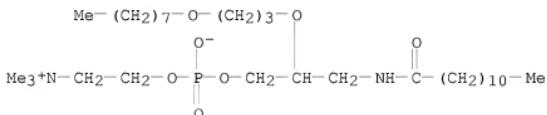
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



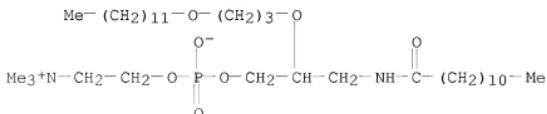
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



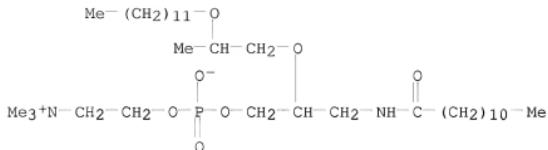
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



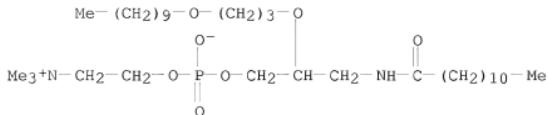
RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-
oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N-trimethyl-, inner
salt (CA INDEX NAME)

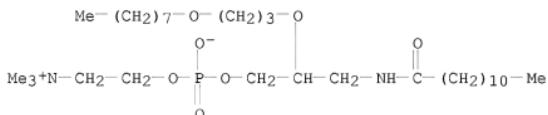


L4 ANSWER 16 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 2007:114796 USPATFULL
 TITLE: Lipid analogs for combating tumors
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

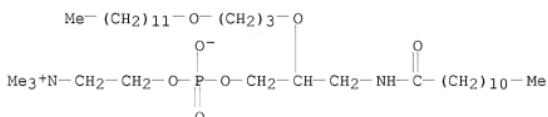
| | NUMBER | KIND | DATE |
|--|---|------|---------------|
| PATENT INFORMATION: | US 20070099870 | A1 | 20070503 |
| | US 7294621 | B2 | 20071113 |
| APPLICATION INFO.: | US 2006-588313 | A1 | 20061027 (11) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US | | |
| NUMBER OF CLAIMS: | 19 | | |
| EXEMPLARY CLAIM: | 1-106 | | |
| LINE COUNT: | 900 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection. | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| IT | 178172-98-0 178172-99-1 178173-00-7
178173-01-8
(phospholipids for treating viral infections and tumors) | | |
| RN | 178172-98-0 USPATFULL | | |
| CN | 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME) | | |



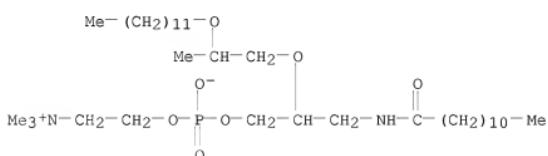
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanolamine, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxylphosphinyl]oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 17 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 2006:284487 USPATFULL
 TITLE: Lipid analogs for treating viral infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES

PATENT ASSIGNEE(S) :
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 Wake Forest University, Winston Salem, NC, UNITED
 STATES (U.S. corporation)
 University of North Carolina at Chapel Hill, Chapel
 Hill, NC, UNITED STATES (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 7129227 | B1 | 20061031 |
| APPLICATION INFO.: | US 1999-412539 | | 19991004 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 2003-793470, Pat. No. US
5962437 A 371 of International Ser. No. WO
1995-US10111, filed on 7 Aug 1995 Continuation of Ser.
No. US 1994-314901, filed on 29 Sep 1994, ABANDONED
Continuation-in-part of Ser. No. US 1994-297416, filed
on 29 Aug 1994, ABANDONED | | |

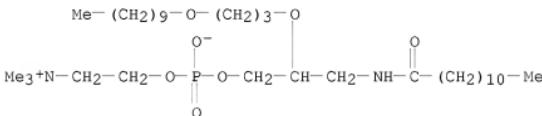
DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Coleman, Brenda
 LEGAL REPRESENTATIVE: Morgan Lewis & Bockius LLP
 NUMBER OF CLAIMS: 24
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1259

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

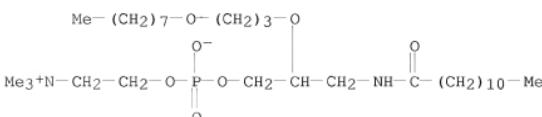
AB A method of treating viral infections, and in particular
 HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The
 method comprises administering to a subject in need of such treatment an
 infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

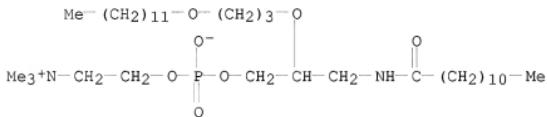
IT 178172-98-0 178172-99-1 178173-00-7
 178173-01-8
 (phospholipids for treating viral infections and tumors)
 RN 178172-98-0 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



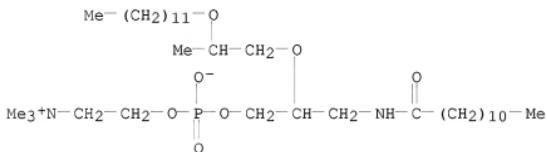
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphosphinyl oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 18 OF 24 USPATFULL on STN
ACCESSION NUMBER: 2005:215516 USPATFULL
TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses
INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES
Hes, Jan V., Hurdle Mills, NC, UNITED STATES
Huang, Yunsheng, Apex, NC, UNITED STATES
Read, Russ H., Rural Hall, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
Kucera, Louis S., Pfafftown, NC, UNITED STATES
Furman, Phillip A., Durham, NC, UNITED STATES
Kucera Pharmaceutical Company (U.S. corporation)
PATENT ASSIGNEE(S):

| | NUMBER | KIND | DATE |
|--|---|------|---------------|
| PATENT INFORMATION: | US 20050187192 | A1 | 20050825 |
| APPLICATION INFO.: | US 2004-783927 | A1 | 20040220 (10) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US | | |
| NUMBER OF CLAIMS: | 65 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 2 Drawing Page(s) | | |
| LINE COUNT: | 2757 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | Provided are compounds, methods and pharmaceutical compositions for | | |

treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

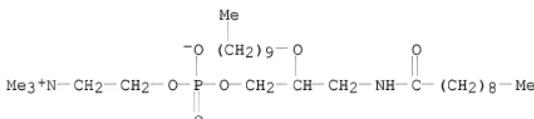
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5

(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

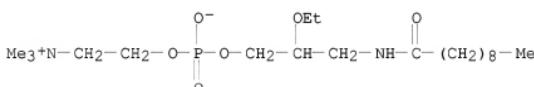
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



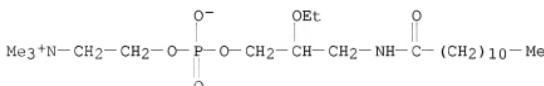
RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



L4 ANSWER 19 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2005:215515 USPATFULL

TITLE: Methods and compositions for the treatment of respiratory syncytial virus

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
 Fleming, Ronald A., Cary, NC, UNITED STATES
 Hess, Jan V., Hurdle Mills, NC, UNITED STATES
 Huang, Yunsheng, Apex, NC, UNITED STATES
 Read, Russ H., Rural Hall, NC, UNITED STATES
 Furman, Phillip A., Durham, NC, UNITED STATES

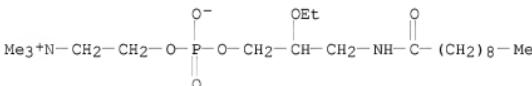
| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 20050187191 | A1 | 20050825 |
| APPLICATION INFO.: | US 2004-781894 | A1 | 20040220 (10) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US | | |
| NUMBER OF CLAIMS: | 39 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 1 Drawing Page(s) | | |
| LINE COUNT: | 2105 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

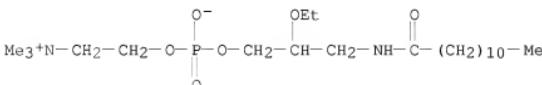
AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15
 (compns. for treatment of respiratory syncytial virus)
 RN 443882-90-4 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)

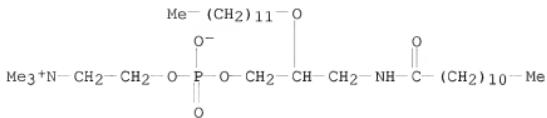


RN 443882-91-5 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
 (CA INDEX NAME)



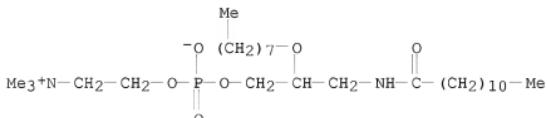
IT 207298-91-7 207298-93-9 252371-27-0
 443882-96-0
 (compns. for treatment of respiratory syncytial virus)
 RN 207298-91-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide

(9CI) (CA INDEX NAME)



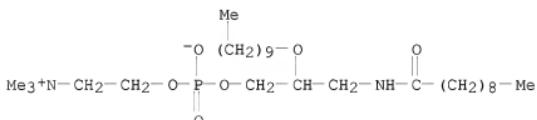
RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
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(9CI) (CA INDEX NAME)



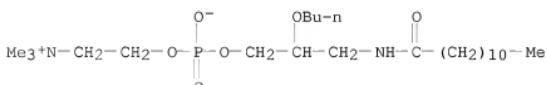
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium,
7-(decyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide
(9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)
(CA INDEX NAME)



L4 ANSWER 20 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2005:93372 USPATFULL

TITLE: Lipid analogs for treating viral infections

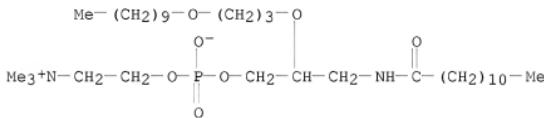
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

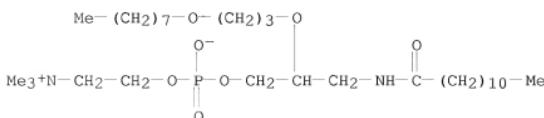
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)
 University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

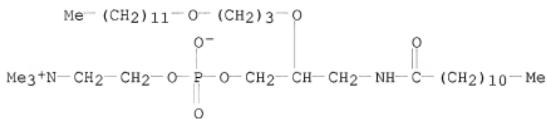
| | NUMBER | KIND | DATE |
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| PATENT INFORMATION: | US 20050080050 | A1 | 20050414 |
| | US 7141557 | B2 | 20061128 |
| APPLICATION INFO.: | US 2004-943923 | A1 | 20040920 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US | | |
| NUMBER OF CLAIMS: | 34 | | |
| EXEMPLARY CLAIM: | 1-106 | | |
| LINE COUNT: | 960 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative. | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| IT | 178172-98-0 178172-99-1 178173-00-7
178173-01-8
(phospholipids for treating viral infections and tumors) | | |
| RN | 178172-98-0 USPATFULL | | |
| CN | 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME) | | |



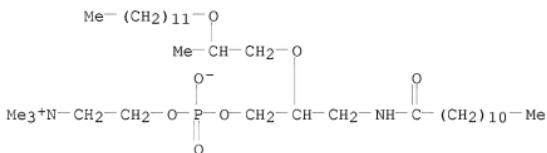
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
CN Ethanaminium, 2-[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphinyl oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 21 OF 24 USPATFULL on STN
ACCESSION NUMBER: 2004:328020 USPATFULL
TITLE: Lipid analogs for treating viral infections
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S.
corporation)
University of North Carolina at Chapel Hill, Chapel
Hill, NC (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 20040259845 | A1 | 20041223 |
| | US 7135584 | B2 | 20061114 |
| APPLICATION INFO.: | US 2004-889127 | A1 | 20040713 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004 | | |
| NUMBER OF CLAIMS: | 19 | | |
| EXEMPLARY CLAIM: | CLM-1-106 | | |
| LINE COUNT: | 903 | | |
| CAS INDEXING | IS AVAILABLE FOR THIS PATENT. | | |

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

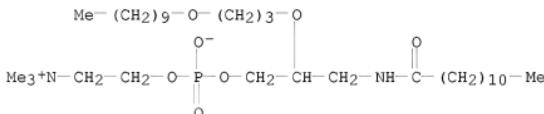
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

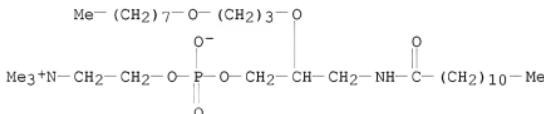
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



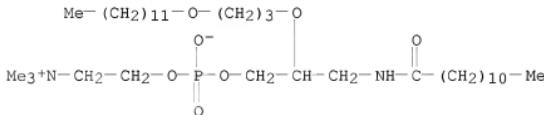
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



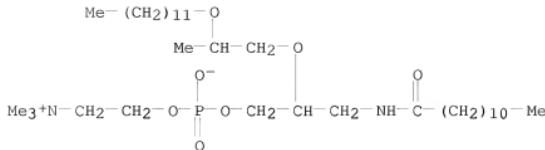
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[(2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyporphosphinyl oxy]-N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 22 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 2000:24634 USPATFULL
 TITLE: Method of treating hepatitis virus infections
 INVENTOR(S): Morris-Natschke, Susan L., Apex, NC, United States
 Kucera, Louis S., Pfafftown, NC, United States
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)
 University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|--------------|------|
| PATENT INFORMATION: | US 6030960 | 20000229 | |
| APPLICATION INFO.: | US 1998-102308 | 19980622 (9) | |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Wilson, James O. | | |
| LEGAL REPRESENTATIVE: | Akin, Gump, Strauss, Hauer & Feld, L.L.P. | | |
| NUMBER OF CLAIMS: | 44 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 1 Drawing Figure(s); 1 Drawing Page(s) | | |
| LINE COUNT: | 1631 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

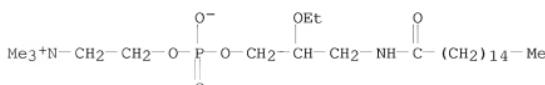
AB A method of treating hepatitis virus infection is disclosed.
 The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P
 (preparation of phospholipids for combating hepatitis B virus)

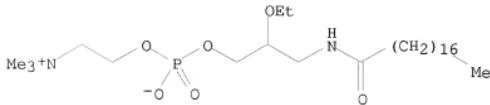
RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)



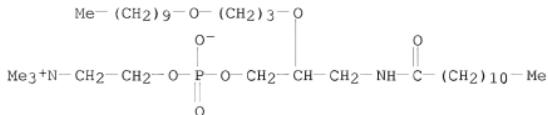
RN 112989-02-3 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)

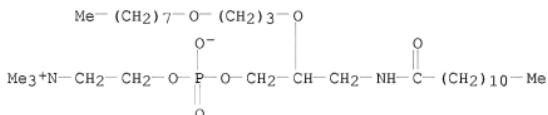


L4 ANSWER 23 OF 24 USPATFULL on STN
ACCESSION NUMBER: 1999:121339 USPATFULL
TITLE: Lipid analogs for treating viral infections
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States
Morris-Natschke, Susan L., Apex, NC, United States
Ishaq, Khalid S., Chapel Hill, NC, United States
PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

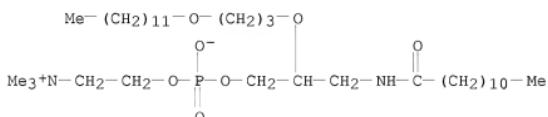
| | NUMBER | KIND | DATE |
|--|--|--------------------------|------|
| PATENT INFORMATION: | US 5962437 | 19991005 | |
| | WO 9606620 | 19960307 | |
| APPLICATION INFO.: | US 1997-793470 | 19970502 (8) | |
| | WO 1995-US10111 | 19950807 | |
| | | 19970502 PCT 371 date | |
| | | 19970502 PCT 102(e) date | |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Raymond, Richard L. | | |
| ASSISTANT EXAMINER: | Coleman, Brenda | | |
| LEGAL REPRESENTATIVE: | Schwegman, Lundberg, Woessner & Kluth, P.A. | | |
| NUMBER OF CLAIMS: | 33 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1159 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| IT | 178172-98-0 178172-99-1 178173-00-7
178173-01-8
(phospholipids for treating viral infections and tumors) | | |
| RN | 178172-98-0 USPATFULL | | |
| CN | 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
4-oxide (9CI) (CA INDEX NAME) | | |



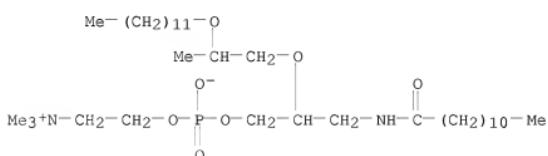
RN 178172-99-1 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL
 CN Ethanolamine, 2-[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxylphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 24 OF 24 USPATFULL on STN
 ACCESSION NUMBER: 1998:72609 USPATFULL
 TITLE: Method of treating hepatitis virus infections
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States
 Morris-Natschke, Susan L., Apex, NC, United States

PATENT ASSIGNEE(S):

Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)
 University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

NUMBER KIND DATE

| | | |
|-----------------------|---|--------------|
| PATENT INFORMATION: | US 5770584 | 19980623 |
| APPLICATION INFO.: | US 1995-465947 | 19950606 (8) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned | |

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Wilson, James O.

LEGAL REPRESENTATIVE:

Schwegman, Lundberg, Woessner & Kluth, P.A.

NUMBER OF CLAIMS:

14

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

1527

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating hepatitis virus infection is disclosed.

The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

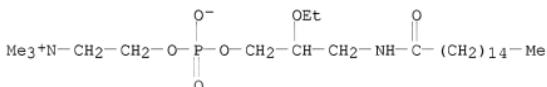
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P 209532-02-5P

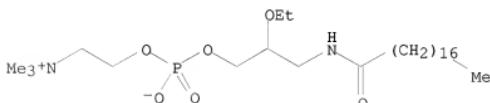
209532-03-6P

(alkyl lipids for treating hepatitis virus infections)

RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)

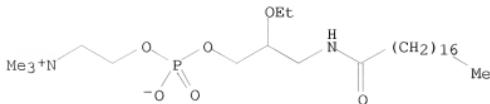
RN 112989-02-3 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA
 INDEX NAME)

RN 209532-02-5 USPATFULL

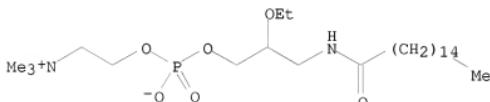
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
 (9CI) (CA INDEX NAME)

Rotation (+).



RN 209532-03-6 USPATFULL
 CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium,
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-
 (9CI) (CA INDEX NAME)

Rotation (+).



=> d his

(FILE 'HOME' ENTERED AT 11:38:48 ON 21 JAN 2009)

FILE 'REGISTRY' ENTERED AT 11:39:05 ON 21 JAN 2009
 L1 STRUCTURE uploaded

L2 68 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:39:33 ON 21 JAN
 2009

L3 50 S L2
 L4 24 S L3 AND (VIRAL OR ANTIVIRAL OR VIRUS OR RSV)

=>

---Logging off of STN---

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 Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 456.34 | 642.44 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
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STN INTERNATIONAL LOGOFF AT 11:48:49 ON 21 JAN 2009